

WASH Capacity Assessment Vanuatu

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Table of Contents

List of Acronyms.....	iv
Executive Summary	1
Purpose of this report.....	3
Approach.....	3
Limitations	5
Review of Policies and Plans relating to WASH in Vanuatu.....	6
DoWR.....	7
MoET	7
MoH.....	7
Institutional Frameworks supporting WASH outcomes	9
DoWR.....	9
MoET	9
MoH.....	10
Coordination between Ministries.....	10
Skills and knowledge required to undertake key tasks and Gaps in skills and knowledge.....	11
Table 1: Capacity assessment for cross institutional arrangements and accountability (DoWR, MoET, MoH) .	12
Table 2: Capacity needs assessment DoWR	15
Table 3: Capacity needs assessment MoET	20
Table 4: Capacity needs assessment MoH	24
Pedagogies for effective capacity building	29
Human Resources Development Plan	32
Appendix 1 Positions unfilled – a serious impediment to capacity building	44
Appendix 2: Applicability of different approaches to building the WASH capacity of Vanuatu government.....	46
Appendix 3 – Existing Training Activities in Vanuatu.....	48
Appendix 4 - Education & training institutes based in Pacific Islands.....	51
Appendix 5 – Plans and Policies relating to core functions for DoWR, MoET and MoH	56

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List of Acronyms

CAP	Capital Assistance Program
DoWR	Department of Water Resources
DSSPAC	Department of Strategic Planning, Policy and Aid Coordination
DWSSP	Drinking Water Safety and Security Plan
ECCE	Early Childcare and Education
GoV	Government of Vanuatu
HRDP	Human Resources Development Plan
HSS	Health Sector Strategy 2017-2020
IWC	International WaterCentre
MEO	Mobile ECCE Officer
MFAT	New Zealand Ministry of Foreign Affairs and Trade
MoET	Ministry of Education and Training
MoH	Ministry of Health
MoJCS	Ministry of Justice and Community Services
MoYSD	Ministry of Youth and Sports Development
MQSS	Minimum Quality Service Standards
National DWSSP	National Implementation Plan for Safe and Secure Community Drinking Water
NIP	National Implementation Plan for Safe and Secure Community Drinking Water
NGO	Non-Governmental Organization
NWAC	National Water Advisory Committee
PMO	Prime Minister's Office
PMO	Provincial Maintenance Officer (MoET)
PWAC	Provincial Water Advisory Committee
SIO	School Improvement Officer
ToT	Training of Trainers
UNICEF	United Nations Children's Fund
USP	University of the South Pacific
VEMIS	Vanuatu Education Management Information System
VHW	Village Health Worker
VIT	Vanuatu Institute of Technology
VITE	Vanuatu Institute of Teacher Education
WASH	Water, Sanitation and Hygiene
WinS	WASH in Schools

Executive Summary

The Vanuatu Water, Sanitation and Hygiene (WASH) program received funds to undertake a Capacity and Training Needs Assessment and develop a Human Resource Development Plan and Capacity Building Workplan for the Department of Water Resources (DoWR) supported by the New Zealand Ministry of Foreign Affairs and Trade (MFAT). In collaboration with the Government of Vanuatu it was agreed to undertake a more holistic approach for the assessment and look at all areas of WASH, such as WASH in Schools with the Ministry of Education and Training (MoET) and Hygiene & Sanitation and Household Water Treatment with the Ministry of Health (MoH) with supplementary financing from UNICEF.

The International WaterCentre was engaged by UNICEF to:

- Undertake a capacity and training needs assessment of DoWR, MoET and MoH staff involved in Water, Sanitation and Hygiene WASH related activities;
- Develop a Human Resource Development Plan (2019-2021) for DoWR, MoET and MoH at national and provincial level, that confirms and prioritises the training needs to effectively deliver the Government of Vanuatu Department of Water Supply National Implementation Plan, WASH in Schools and Hygiene & Sanitation Policy; and
- Establish a workplan for relevant staff capacity building for 2019-2021.

A total of 22 semi-structured interviews were conducted with Directors and operational staff at the National level from DoWR, MoET and MoH; Provincial government staff in Sanma Province from DoWR and MoH; and other government and non-government groups who are involved in WASH delivery and WASH capacity development. This was supplemented with a review of available documents, policies and plans relating to WASH activities in Vanuatu, and was then followed up with a workshop for DoWR, MoH and MoET staff to present the findings and seek feedback/validation.

The principal gaps in skills and knowledge that were identified are:

- DoWR - Communities will need support to manage and monitor water supplies and infrastructure
- DoWR - Communities will need support in how to maintain effective Water Committees; managing finances for operation and maintenance; strengthening supply chains for spare parts; and building local technical skills and water safety monitoring
- DoWR - Area Secretaries will need support in liaising with Community Water Committees and Provincial DoWR staff to develop suitable DWSSP
- MoET - Current and future teachers will need training in how to deliver WASH in schools, including menstrual hygiene management, handwashing behaviours and sanitation promotion activities.
- MoET - School Improvement Officers and Mobile ECCE Officers will need training on the use of national guidelines or standard designs to assist with identifying and installing appropriate WASH facilities in schools
- MoH - Village Health workers will need training in the construction and use of improved WASH facilities, as well as hygiene practices as part of food safety training.
- DoWR - Formal training in plumbing and water supply systems from source to end user
- DoWR – Water source protection, including risk analysis of water sources, and use of water quality guidelines
- DoWR – Provincial staff to work with Area Secretaries, Community Water Committees and Contractors to develop and deliver DWSSP
- DoWR - Supervising installation of desalination systems and solar pumps
- MoET - Training in WASH guidelines and standards as well as menstrual hygiene management, handwashing behaviours and sanitation promotion activities for Provincial trainers
- MoH - Environmental Health Officers and Compliance Officers will need training in hygiene, food safety, legislation and standards to support Sanitation Officers, nurses and village health workers at the community level.
- All agencies - Skills for oversight, coordination and development of plans and policies

- All agencies - Developing an understanding of roles and responsibilities within and between Ministries at national and provincial level and improving linkages between agencies
- All agencies - Planning, budgeting and project management
- All agencies - Procurement skills including use of standard operating procedures for tendering processes and structured systems for financial management
- All agencies - Managing Human resources – to manage staff training and capacity building programs, as well as hiring of appropriate new staff at all levels
- All agencies - Administration, logistics and organisation skills for mid-level professionals
- All agencies - Information management for reporting and planning. Collecting and using data effectively
- All agencies - Skills for monitoring, compliance and enforcement with relevant policies, Acts, regulations and standards at national and provincial levels
- All agencies - Integrating climate change mitigation and disaster risk reduction into WASH planning
- All agencies - Gender and social inclusion considered in plans and programs
- MoH and MoET - Improved linkages between technical and behavioural aspects of WASH programs (through deeper understanding of modern WASH behaviour change)
- DoWR - Skilled hydraulic engineers for developing water system designs and conducting surveys, who can then teach some of these skills to provincial level staff
- DoWR - The use of QGIS for collecting and managing field data to design appropriate water supply systems
- MoET - Technical expertise in appropriate standards and processes to develop national guidelines or standard designs (minimum quality standards) for WASH facilities in all types of schools (drinking-water, and sanitation, and pre-approved infrastructure designs for schools)

To address these gaps, we recommend that:

1. The principal approach to country and sector wide capacity gaps should be the design of custom made, practically based short courses that are delivered near to where participants work, followed by post training opportunities for feedback and reflection. Country and sector wide capacity gaps should be addressed through a Training of Trainers approach so that training may be delivered multiple times and in multiple locations.
2. Mentoring is the most effective way to build sustained capacity to address gaps with smaller numbers of key staff. However, this mentoring needs to be done well – i.e. by mentors with experience in transferring Vanuatu-appropriate skills and knowledge to ni-Vanuatu. Mentoring has the advantage of scaffolding learning over a longer period of time. Mentors could work with specific staff on a regular basis over a period of one year. Mentoring doesn't need to be every day but may be through regular visits of one week per month or two months for a year.
3. Accredited courses could be useful in some circumstances, although off the shelf accredited courses may not always be applicable to local conditions and creating new accredited courses may take time to develop and approve. Accredited courses could be most useful for some specialist skills or as part of a Training of Trainers Program.

More details on training approaches to address specific needs are shown in the Human Resource Development Plan which can be found in the table on page 32 of this report.

Purpose of this report

The Vanuatu Water, Sanitation and Hygiene (WASH) program received funds to undertake a Capacity and Training Needs Assessment and develop a Human Resource Development Plan and Capacity Building Workplan for the Department of Water Resources (DoWR) supported by the New Zealand Ministry of Foreign Affairs and Trade (MFAT). In collaboration with the Government of Vanuatu it was agreed to undertake a more holistic approach for the assessment and look at all areas of WASH, such as WASH in Schools with the Ministry of Education and Training (MoET) and Hygiene & Sanitation and Household Water Treatment with the Ministry of Health (MoH) with supplementary financing from UNICEF. This report i) shares findings base on a capacity and training needs assessment of DoWR, MoET and MoH staff involved in Water, Sanitation and Hygiene WASH related activities; and ii) presents a Human Resource Development Plan (2019-2021) for DoWR, MoET and MoH at national and provincial level. The Human Resource Development Plan is intended to confirm and recommend prioritised intervention that can effectively support the deliver the Government of Vanuatu Department of Water Supply National Implementation Plan and the WASH in Schools and Hygiene & Sanitation Policy.

Approach

The approach drew guidance from the with the World Bank's Capacity Development Results Framework (2009¹) and the UNDP (2009) Measuring Capacity Development in practice (figure 1). A common feature from both frameworks is the need to focus on capacity factors that impede the achievement of development goals, such as those outlined in government policies and plans. This approach was adapted to suit the scope and context in Vanuatu.

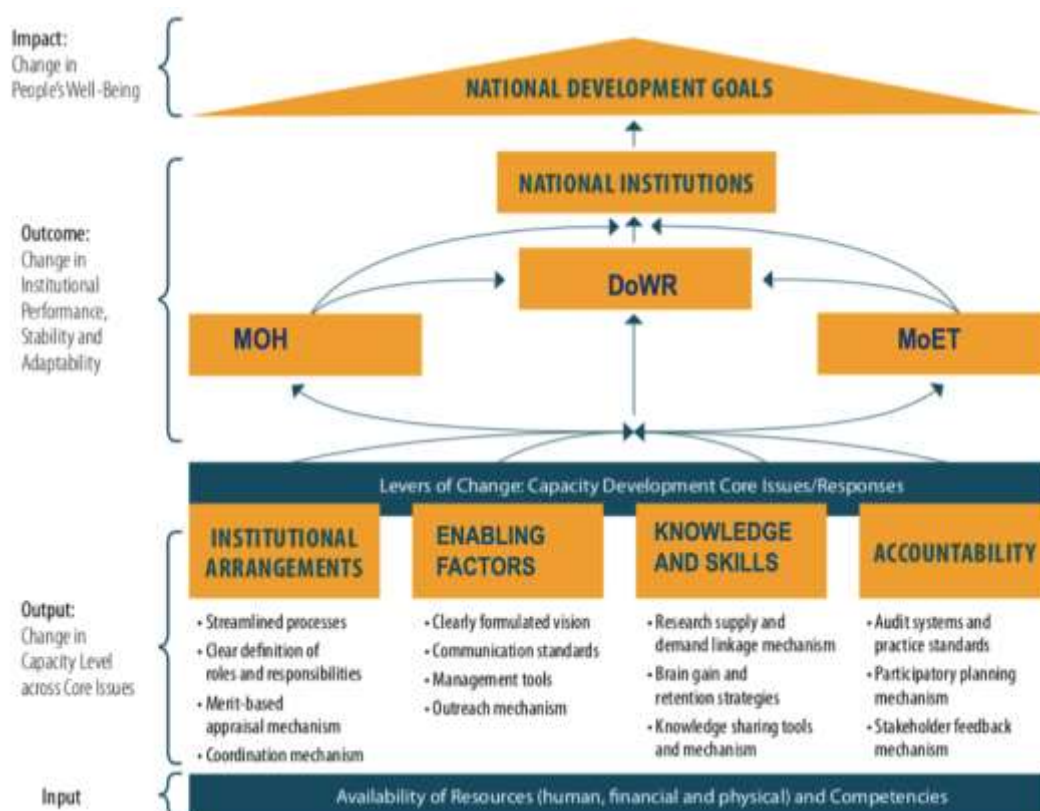


Figure 1: Developing capacity that support delivery of national goals (adapted from UNDP, 2009)

¹ http://siteresources.worldbank.org/CSO/Resources/228716-1369241545034/The_Capacity_Development_Results_Framework.pdf

This approach adopted for completion of this capacity and training needs assessment, included:

1. Conduct a desktop review of National WASH policies and plans; existing reports on WASH in Vanuatu, and WASH capacity assessments from Vanuatu or similar countries in the Pacific, in order to
 - a. Identify desired WASH outcomes for government agencies
 - b. Identify capacity needed to meet these outcomes (institutional structures, skills and knowledge)
2. Conduct in country semi-structured interviews with
 - a. Directors and operational staff at the National level from DoWR, MoET and MoH;
 - b. Provincial government staff in Sanma Province from DoWR and MoH; and
 - c. other government and non-government groups who are involved in WASH delivery and WASH capacity development

The interviews were used to

- a. Verify the outcomes and capacities identified in step 1
 - b. Identify other gaps in skills and capacity needs
 - c. Identify participant suggestions on strategies to fill gaps
3. Data analysis to align identified gaps and existing capacity, with our assessment of required capacity, including a review of literature on best practices for capacity development.
4. A workshop in Vanuatu to present findings of Capacity Needs Assessment to stakeholders and seek feedback/validation
5. Preparation of a draft Capacity Needs Assessment report, including the key elements of a draft Human Resources Development Plan and seek feedback from stakeholders

We conducted a total of 22 semi-structured interviews in step 2 above – these were mostly one on one interviews, although in some cases two representatives were present; and in two cases 5 or more people were present.

The semi-structured interviews included the following aspects:

- A discussion of the national WASH outcomes that each government agency hopes to achieve over the next 5 years;
- an assessment of the institutional framework that supports achievement of these outcomes, in particular, clarifying the roles of the respective government departments (Ministry of Education & Training, Ministry of Health and Department of Water Resources) and relationships with other WASH sector institutions;
- identifying the operational and enabling requirements to achieve these outcomes, including a focus on **who** (groups/roles within agencies, or outside if relevant) will be required to undertake **what** tasks;
- identifying the skills and knowledge required to undertake the key tasks identified above;
- assessing existing capacities against the required knowledge and skills and identifying gaps in capacity; and
- discussing the best approaches to address those gaps in skills and knowledge.

Discussions with other actors in the sector were to seek information on existing capacity building programs and opportunities, as well as perspectives on the effectiveness of past capacity building pedagogies, such as face-to-face training, online or blended training, peer exchanges, in-housing of experts, and education programs.

Note that although we attempted to hold discussions with a wide range of stakeholders, most of these discussions were at the National level. We were only able to visit one Province for one day and we did not manage to meet with staff who work directly with communities, such as Area Secretaries or School Improvement Officers. Due to the high demand on time for many national level staff, we had limited success in organising workshops where a number of staff could attend, and instead we mostly conducted one on one interviews. Individual interviews were very helpful for exploring issues in depth, but this meant that a broader range of ideas and discussions were often not possible.

Limitations

There were a number of limitations in delivery and the scope of the project which influenced this final output.

Limitation included:

- the design was intentionally participatory supported by a rapid desktop review. Field visit were fixed in time and scope and during key visits a number of key interviewees were not available for workshops and key data collection activities. This impacted on comprehensiveness of data collated and, on the ability to complete a Theory of change for capacity development with stakeholders.
- The researchers were unable to fully validate the range of formal positions across each of the three target agencies. This inhibited the ability of this report to consistently link capacity gaps to individual positions. In some section the report therefore speaks to capacity related to specific roles rather than positions. Summary of status of formal positions in provided in Appendix 1.
- The focus of the review focused predominately on 'WASH for Development' and while the importance of 'WASH in emergency' is not underestimated it is not substantively covered in this report.
- The report focuses on rural systems and has not included a detailed focus on urban systemd in Vanuatu.
- Findings are primarily focused on the three main agencies, however it is acknowledged that other agencies play enabling roles in the effective delivery of WASH services.

Review of Policies and Plans relating to WASH in Vanuatu

Context

There are three main agencies in Vanuatu with responsibility for WASH. Figure 2 summarises the key Policies, Legislation and Plans that relate to the delivery of WASH outcomes for the DoWR, MoET and MoH.

Outside the NSDP the Decentralisation Act allows for down scaling the level at which decisions and actions can be taken. This will likewise result in increased capacity at the provincial and sub-provincial levels.

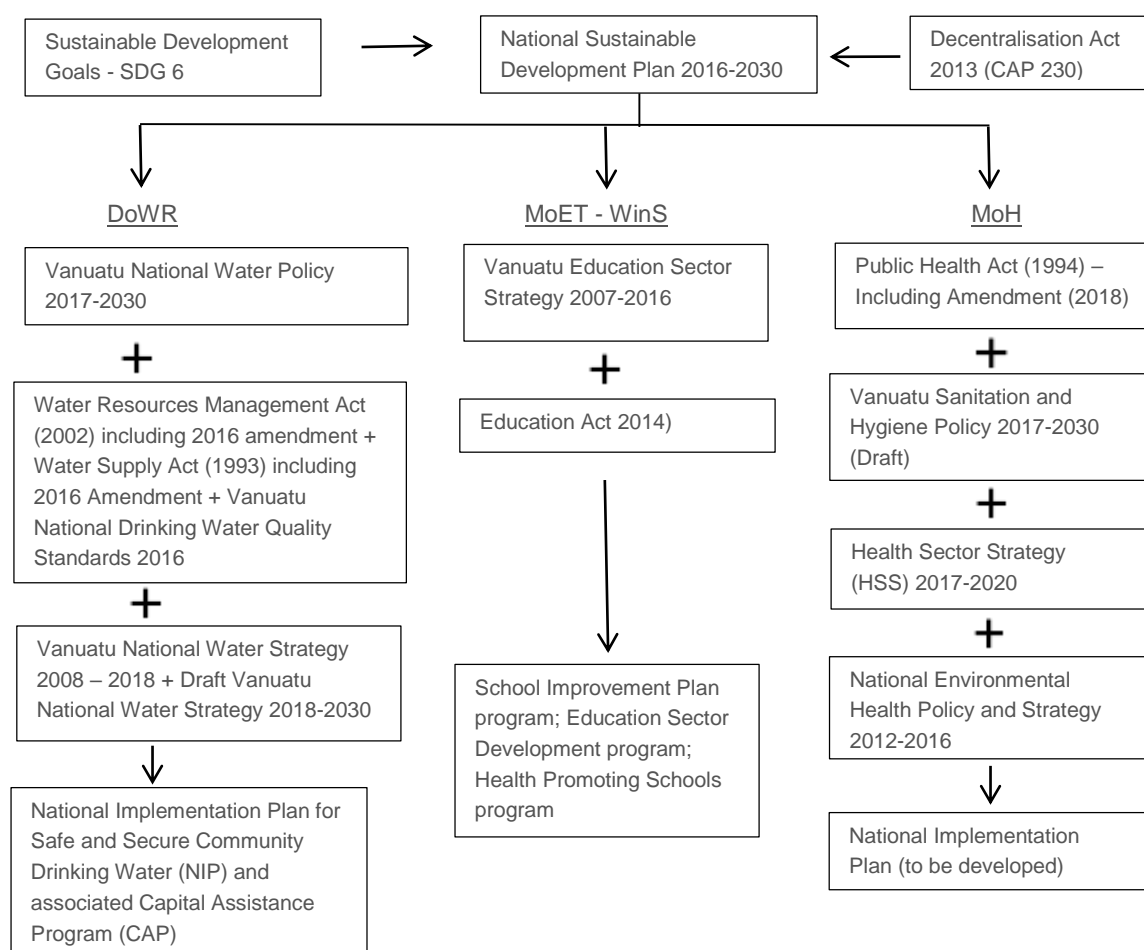


Figure 2: Policies, Legislation and Plans that relate to the delivery of WASH outcomes for the DoWR, MoET and MoH

The principal WASH policy objectives to be delivered by the National Sustainable Development Plan 2016-2030 are:

- ECO 2.2 to ensure safe water services for all
- ENV 4.2 to protect community water sources
- ENV 4.7 to build community natural resource management capacity
- SOC 3.2 to reduce communicable diseases
- SOC 3.3 Promote healthy lifestyle choices and health seeking behaviour to improve population health and well-being

- SOC 6.5 to strengthen local authorities to enable decentralised service delivery
- SOC 6.6 to strengthen physical planning to meets the need of a growing population

Other relevant objectives include SOC 3.1, SOC 3.4, SOC 6.1, SOC 6.4, ENV 3.1, ENV 3.2, ENV 3.3, ENV 3.4, ENV 5.6, ECO 2.4 and ECO 4.6.

Each of the above agencies then have a set of desired WASH outcomes to help achieve these policy objectives, as outlined in their policies, legislation and plans.

DoWR

The DoWR is responsible for the provision of safe, secure and sustainable management of community water supplies; sustainable management of urban water systems (outside of Port Vila); protection of water resources and catchment management; and coordinating and mainstreaming WASH disaster programs to ensure resilience across communities. In Urban areas, the Water Supply Act provides for the delegation of water management to private operators, although the DoWR is still responsible for the maintenance and regulation of water sources for urban areas.

A significant part of DoWR planning and programs are based on the Vanuatu National Implementation Plan for Safe and Secure Community Drinking Water (National DWSSP), more commonly referred to as the National Implementation Plan (NIP). This plan provides a coordinated approach that supports all communities in Vanuatu to achieve reliable access to safe drinking water, led by the Department of Water Resources. The NIP supports decentralised decision-making, assistance and action, and specifically includes a new approach to requesting financial assistance for improvements, the Capital Assistance Program (CAP). There are a number of ongoing efforts to support implementation of the NIP. For example, ESR is in the process of assisting DoWR develop a transition plan to a fully functional NIP/CAP.

MoET

The MoET is responsible for the WASH in Schools (WinS) Program which aims to ensure there is access to safe water and sanitation facilities in all schools as well as appropriate hygiene practices. In May 2016, the Ministry of Education and Training (MoET) hosted a call-to-action stakeholder workshop for WASH in schools.

Recommendations from the workshop targeted four areas for improvement: coordination, monitoring, scaling-up at school level, and advocacy. In particular, there were calls to clarify roles and responsibilities for coordination of WinS activities, and consolidate and review WinS standards, policy and guidelines in line with best practice. The MoET is developing a coordinated approach to WASH in Schools with the DoWR and the MoH.

A WinS gaps analysis identified a number of key areas where support was recommended to government stakeholders to update or develop priority policies, strategies, standards and technical guidelines, and processes. The report includes a section on roles and responsibilities for various stakeholders from which skills and knowledge needs could be extracted (ESR, 2018).

MoH

The MoH is responsible for household water treatment and storage, sanitation and hygiene promotion, as well as WASH in health clinics. An important Unit for WASH activities within the MoH, is the Environmental Health Unit which is within the Department of Public Health. The MoH has developed a draft National Sanitation and Hygiene Policy which has a number of WASH aspects within the six priority areas. Once this Policy is approved, the MoH will develop an Implementation Plan to guide activities for the next 5 years. Another important document is the 2018 Amendment of the Public Health Act 1994, which had a major component on sanitation included to provide standards for sanitary systems and devices.

The Environmental Health Unit is responsible for sanitation and hygiene in communities. An important guiding document for this Unit is the Environmental Health Sector Strategy, a major component of which is safe water and sanitation. Although the current Environmental Health Sector Strategy lapsed in 2016, the MoH will be developing a new strategy based on the Health Sector Strategy 2017-2020.

Other agencies.

MFAT is supporting implementation of the NIP through its Vanuatu WASH Sector Strengthening Programme. As part of the development of the programme, ESR prepared a report to MFAT "Vanuatu WASH Sector Strengthening Programme: WASH sector scoping and stakeholder stocktake", based on outputs from two participative workshops. The report consolidates issues into themes, identifies needs and investment opportunities, and takes stock of skills, knowledge and capacity required to improve the WASH sector.

Institutional Frameworks supporting WASH outcomes

DoWR

The DoWR is responsible for the provision of safe, secure and sustainable management of community water supplies. This includes protection of water sources. They are coordinating the public health risk-based assessment of rural water supply schemes and improvement planning including installation of water supply systems through the National DWSSP (NIP).

This is the first year of the National DWSSP (or NIP), which together with the CAP is the main mechanism that will drive water services to the communities. In 2018 the DoWR will be trialling approximately 10 DWSSP per Province. As the DoWR does not have the human resource capacity to support development and implementation of all the drinking water safety and security plans (DWSSP), they are using NGOs, private and civil society organisations and church groups to roll out the program. In preparation for this, the DoWR have been running Training of Trainers courses that includes the basic processes of organizing communities, financial management and plumbing to support the development of Rural Water Committees, DWSSP, and maintenance and operation of water systems.

Provincial Water Offices, together with Area Secretaries, will be the link from government to the community to promote the establishment of Rural Water Committees, supported by NGOs and private contractors that have had been accredited by DoWR through Training of Trainers. The Community Water Development Officers will have a key role in engaging with communities.

Although Provincial Water Offices will still be involved in installing larger, more complex rural water supply systems, they are in the process of shifting from a service delivery role to a more regulatory role of monitoring and compliance for both urban and rural water supplies. They will also remain responsible for protection of water sources.

MoET

The MoET is responsible for health promotion and access to safe drinking water and adequate sanitation facilities in schools. There are basic standards already in place, such as the requirement for every new building in schools to have a 6000L water tank attached and that sanitation facilities exist in all schools. However, minimum standards are still being developed.

The MoET tentatively plan to include a National WinS Officer who will manage coordination with other internal departments, ministries and non-state partners. The proposed coordination mechanism indicates that there will be decentralised to the provinces once the national structures are in place, however an alternative approach could focus on piloting and building provincial level coordination and WinS activities that justify the need for national-level oversight. Recently 2 MoET WinS Focal Points have been selected, however their WinS duties are in addition to their regular work requirements, as WinS-related responsibilities have yet to be written into their job descriptions.

MoET also have an Inclusive Education and Child Protection focal point, who contribute to oversight of gender and equity-related aspects on WinS.

At the Provincial level, each Province has a Provincial Early Child Care and Education (ECCE) Coordinator, School Inspectors and Provincial Trainers. Each school zone also has a School Improvement Officer (SIO) and Mobile ECCE Officer (MEO) who work with School Principals to identify issues and problems at the school level. SIOs and MEOs will have a key role in engaging with schools on WASH.

The Vanuatu Education Management Information System (Open VEMIS) is being used to compile information about facilities in each school, with an asset survey completed for almost all primary schools. High level ECCE centre facility and MQSS surveys are mostly all complete, and MoET is currently waiting for funding to complete the survey for secondary schools.

MoH

The Environmental Health Unit in the Ministry of Health is responsible for sanitation and hygiene in communities and WASH in health care facilities. The MoH also has responsibilities for Sanitation and Hygiene in emergencies, as well as ensuring safe drinking water.

In the new structure for the MoH, Environmental Health is one of 13 units in the Public Health Directorate. This structure will be mirrored at the Provincial level with a Provincial Health Administrator and Provincial Public Health Manager, who will be responsible for the 13 units at the Provincial level. The Environmental Health Officers will form one of these units, which will also include Compliance Officers and Sanitation Officers, with one sanitation officer per Zone. The Provincial Environmental Health Officers will work with nurses, village health workers, communities and provincial government to promote safe drinking water, hygiene, food safety, legislation and standards and occupational health.

Note that many of these positions are still not filled at the Provincial level. Currently the government is advertising to fill the Provincial Health Administrator positions, after which Provincial Health Manager positions will be filled. Environmental Health Officers have only been recruited in two of the Provinces, while other provinces rely on support from other departments within the Ministry.

Coordination between Ministries

Until recently, there has been limited coordination between the DoWR, MoET and MoH to implement WASH outcomes at National and Provincial levels. The WinS Program is attempting to address this with a consolidated WinS strategy, as all three agencies need to work together for an effective outcome. Other areas where some coordination is occurring are:

- There is a National Health Promoting Schools Committee comprised of representatives from the MoET, MoH, UNICEF and various NGOs.
- The WASH Cluster brings together various government agencies and NGOs to work on WASH and Disaster related activities. The DoWR coordinates the WASH Cluster, and works closely with the MoH, as well as the MoET and Gender and Protection to some extent.
- MoET are holding discussions with the Dept of Provincial Affairs in relation to the issue of Area Councils not always covering the same areas as the school zoning system.
- The DoWR and MoH are working to share relevant water quality monitoring data and there are also discussions with MoET to coordinate data sharing across all three Ministries.
- As of 2018, MoET have been chairing bi-annual, multi-sectoral WinS Steering Committee meetings, aimed at overseeing all WinS-related activities in Vanuatu. The committee comprises manager and director-level membership from MoET, MoH, DoWR, MoJCS, MoYSD, NGOs and the donor community.

Skills and knowledge required to undertake key tasks and Gaps in skills and knowledge

Based on our consultations with staff from the three Government agencies, and a detailed review of Policies, Legislation and Plans, we have identified key functions, key capabilities required, and current and capacity required for staff from the DoWR, MoET and MoH to deliver WASH outcomes to communities across Vanuatu. These findings are presented starting from capacity required at lowest level and moving upwards to identify capacity required at national level.

At each level and for each Ministry key **functions** have been identified against policies and plans (Appendix 5). From the review of policies and from the participatory surveys the key competencies required to delivery functions are considered, followed by a mapping of **existing capacity** and **desired capacity**. The gap between existing and desired capacity indicate the space for targeted capacity development efforts are required to build a competent work force with the knowledge, skills and abilities to delivery key functions. These **priority capacity gaps** required directly inform the priority area for the proposed Human Resources Development Plan.

Gaps in capacity have been prioritised according to the following criteria:

- Importance expressed by stakeholders
- Number of stakeholders who identified a gap
- Scale of capacity gap
- Importance considered by assessment team

Note that in relation to gaps in competencies, a serious issue across all of the government agencies is that many key positions at national and provincial level are either not filled or are filled on a temporary basis. Appendix 1 provides further detail of these issues.

Table 1: Capacity assessment for cross institutional arrangements and accountability (DoWR, MoET, MoH)

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
Stable, functional institutions	Governance and Policy development and implementation	Knowledge and ability to interpret policy and legislation, guidelines and standards related to WASH.	Limited capacity in all of these areas. Perhaps one or two people at National level and a reliance on external experts to assist with core functions	Shared understanding across key organisations (national and provincial) of policies and plans, agency responsibilities, and processes, forms and deliverables. Capability (at least one person) to fulfil these functions within each department of a Ministry at National Level and within each Ministry at Provincial level	Skills for oversight, coordination and development of plans and policies
	Clarity on roles and responsibilities	Understanding of overlaps and complementary institutional roles based on policies.	Limited clarity on boundaries of responsibilities between different actors and mechanisms to work within and between institutional structures	Those in leadership positions in each Ministry need detailed understanding of roles and responsibilities within their organisations and have established mechanisms for linkages and coordination between and within Ministries	Developing an understanding of roles and responsibilities within and between Ministries at national and provincial level and improving linkages between agencies (14)
	Planning, budgeting and Management	Capacity to lead all stages of planning and management for implementation of policies and plans. (planning, project design, procurement, monitoring and reporting process based on policy)	Limited capacity to manage projects at National level and very limited capacity at Provincial level Limited number of people at National level with skills in procurement, tendering and financial management	Program management expertise to provide leadership for overall delivery of policies and plans and managing national level programs, including financial, human resources, monitoring and reporting. Similar ability at Provincial level for provincial programs. DoWR should have internal Technical Capacity to guide, project management and planning for the NIP and CAP as it rolls out across the country	Skills for oversight, development of plans and policies, as well as monitoring, compliance and enforcement with relevant Acts, regulations and standards. (13) Planning budgeting and project management for managers at national and provincial levels (18)

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
					Procurement skills including use of standard operating procedures for tendering processes and structured systems for financial management (16)
	Cross sectoral coordination	Capacity to engage across sectors, agencies and level of governance, civil society and private sector	The Wash in Schools program is a good example of agencies working together to achieve a common outcome. However, this is still an exception and government agencies tend to work separately with limited collaboration	Skills for effective coordination and alignment across different government agencies for more effective delivery of WASH services	Improved coordination in relation to WASH related programs across government agencies at National and Provincial levels (21)
	Administration and logistics	Administration and management skills to support recruitment of human resources and capacity building programs Administration and logistic skills for mid-level managers of programs at national and provincial level	Limited number of positions for managing human resources and capacity building programs. Limited formal training in these areas Many mid-level management positions are vacant or filled as acting positions. Limited formal training in administration and logistics	Administration and management skills for staff at National and Provincial levels for HR and capacity building programs. Administration, logistics and organisation skills for mid-level program managers at national and provincial level	Managing Human resources – to manage staff training and capacity building programs, as well as hiring of appropriate new staff at all levels (15) Administration, logistic and organization skills for mid-level professionals (19)
	Human resource management	Recruit, appoint and upskill new offices on range of roles and responsibilities for delivery of WASH services	Major gaps in current work force, unclear prioritisation of the important to focus on full resourcing HR requirements.	Human Resource skills to manage staff training and capacity building programs	As above
	Information management	Information management for reporting purposes.	Data relating to water supply systems is being collected via	The MoET Open VEMIS system appears to be undertaking effective training in how all staff from	Information management for reporting and

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
			<p>tablets and sent to the national level, but there is limited knowledge of how to use the data effectively at National, Provincial and local levels.</p> <p>Evidence that that water, health and education data collection could be better integrated)</p>	<p>National to local level, can manage and make use of the data collected for education.</p> <p>The DoWR and MoH team at national and provincial levels both required capacity for data capture, processing, integration of datasets, information management, and reporting/ communication.</p> <p>The DoWR and MoH could develop similar training systems, as well as look at how to integrate data collection across the three agencies.</p> <p>The use of QGIS a desktop geographic information system that supports analysis of geospatial data) by DoWR for collecting and managing field data in order to support catchment management and the design appropriate water supply systems</p>	<p>planning. Demonstrating the value and benefits from collecting, sharing and using data effectively (20)</p> <p>The use of QGIS by DoWR technical teams for collecting and managing field data to design appropriate water supply systems (24)</p>
Accountability	Monitoring, compliance and enforcement	Ability to supervise, enforce and monitor compliance and enforcement of relevant Policies and Acts at national, provincial and local levels	Limited understanding of relevant policies and Acts; limited training in monitoring and compliance mechanisms. Lack of clarity of roles and responsibilities in terms of monitoring and compliance mechanisms	<p>Clear roles and responsibilities for monitoring and compliance of relevant policies, Acts, regulations and standards within each Ministry. Well trained compliance officers at national and provincial levels high levels of understanding of regulatory requirements, and skills in compliance and enforcement.</p> <p>Since the DoWR is moving away from service delivery to a regulatory role, skills are needed in monitoring, compliance and enforcement are particularly important.</p>	Skills for monitoring, compliance and enforcement with relevant policies, Acts, regulations and standards at national and provincial levels (Priority need for enforcement and compliance is with DoWR and MoH)
	Inclusive participatory processes	Policies, plans and programs adequately address gender and social inclusion issues	MoET also have an Inclusive Education and Child Protection focal point, who contribute to oversight of gender and equity-related aspects on WinS.	Oversight of gender and social inclusion in delivery of programs for all three Ministries at national and provincial levels	Gender and social inclusion considered in plans and programs

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
Resilient systems	Resilience to climate change and other natural or man-made disasters	Plans, procedures, roles and responsibilities in place to promote resilience to climate change and other natural or man-made disasters at national and provincial level	The WASH Cluster brings together various government agencies and NGOs to work on WASH and Disaster related activities. The DoWR coordinates the WASH Cluster, and works closely with the MoH, as well as the MoET and Gender and Protection to	Understanding of climate change and disaster risks to WASH services and infrastructure and adequate plans and roles in place to address these issues at National and Provincial levels Coordinating resilience across communities and mainstreaming WASH disaster programs	Integrating climate change mitigation and disaster risk reduction into WASH planning (17)

Table 2: Capacity needs assessment DoWR

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
Protection of water resources	Protection of water resources and catchment management	Understanding of designing and implementing appropriate water quality and quantity monitoring programs. Capacity to legislate and enforce protection of water sources	Limited capability to monitor quality and quantity, especially at Provincial level	Community level Ability to regulate local land and water use practices. Provincial level Community Water Development Officers and other of similar position and roles require a functional understanding of the Water Resources Management Act requirements for registering Rural Water Committees (RWC). National level Skilled staff to support provincial water development officers	Increase capacity at front line, provincial and national level to adopt an integrated approach to source protection (8)

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
Supply Management	Provision of safe, secure and sustainable water supplies	Understanding of benefits from safe, reliable WASH services, and of the range of service delivery models that are appropriate to Vanuatu context and compliant with national goals and policies.	The DoWR is using the NIP and the CAP to provide community water supplies. This is still in an initial phase and skills at Provincial and local levels are limited	<p>Community</p> <p>Aware of value and benefits from functional, safe and sustainable WASH services. Functioning water committees at the local level, supported by district and provincial staff</p> <p>Provincial</p> <p>Capacity to support the development of DWSSP at local levels</p>	<p>Communities will need support to manage and monitor water supplies and infrastructure (1)</p> <p>Communities will need support in how to maintain effective Water Committees; managing finances for operation and maintenance; strengthening supply chains for spare parts; and building local technical skills and water safety monitoring (2)</p> <p>Area Secretaries will need support in liaising with Community Water Committees and Provincial DoWR staff to develop suitable DWSSP (3)</p> <p>Provincial staff to work with Area Secretaries, Community Water Committees and Contractors to develop and deliver DWSSP (9)</p>
	Water supply infrastructure design and development	Assessing water sources to adapt standard designs to each situation	Many staff have limited formal training, although they may have practical experience in building and maintaining water supply systems. Key staff with good knowledge at	<p>Community level</p> <p>Operate and maintain systems that have been turned over to community.</p>	<p>Community level</p> <p>Formal training in operation and maintenance of water</p>

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
		<p>Infrastructure works design, supervision of construction, inspections and approvals,</p> <p>Awareness of new technological options for water services (e.g. desalination systems and solar pumps)</p> <p>Developing standard designs that can be adapted to local conditions</p>	<p>provincial level are close to retiring with limited skilled people to replace them.</p> <p>Design of standard systems at national level is heavily reliant on external consultants with few government staff available to learn from these specialists</p>	<p>Provincial</p> <p>A sound engineering background with experience in water supply. Ability to design hydraulic engineered designs for developing water systems.</p> <p>In the short term, staff would benefit from formal training in operational and maintenance of water supply systems</p> <p>Knowledge and skills for management, planning and administration is required as DoWR staff transition to an oversight and management role rather than building and maintaining the systems.</p> <p>National</p> <p>Supervising installation of desalination systems and solar pumps which are being installed by various contractors</p> <p>Government staff have capacity to design standard systems that can be adapted to local conditions</p>	<p>supply systems from source to end user (7)</p> <p>Provincial/national levels</p> <p>Practical experience in supervising installation of new technologies and systems (10)</p> <p>Skilled hydraulic engineers for developing water system designs and conducting surveys (23)</p> <p>Skilled hydraulic engineers for developing water system designs and conducting surveys, who can then teach some of these skills to provincial level staff (24)</p> <p>The use of QGIS for collecting and managing field data to design appropriate water supply systems (25)</p>
	Water safety planning (DWSSR)	Water safety planning and risk assessment to manage quality and quantity from source to end user.	The DoWR is using the NIP and the CAP to provide community water supplies. This is still in an initial phase and skills at Provincial and local levels are limited	<p>Community</p> <p>For those working directly with communities and Area Secretaries (particularly the Community Water Development Officers), a sound understanding of the DoWR approach for DWSSP</p>	Provincial staff to work with Area Secretaries, Community Water Committees and Contractors to develop and deliver DWSSP (9)

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
		<p>Response and mitigation to low water quality events and pollution incidents.</p> <p>Understanding of possible sources of contaminants likely variation in contaminant levels in source water, requirements of national Drinking Water Standards</p>		<p>Provincial</p> <p>High-level technical knowledge of DoWR approach to DWSSP, able to audit quality of DWSSPs and approve completed DWSSPs.</p> <p>Provincial/ National</p> <p>Ability to train, support and monitor performance of DSSSP Contractors who deliver DWSSP training to RWCs and facilitate DWSSP development.</p> <p>Detailed understand and capacity to responses to poor water quality, sampling/storage and transport requirements for water samples, field and laboratory testing procedures, maintenance of testing equipment, meaningful reporting of results</p>	<p>Provincial/ National</p> <p>Skills for oversight, coordination and development of plans and policies (13)</p> <p>Skills for monitoring, compliance and enforcement with relevant policies, Acts, regulations and standards at national and provincial levels (20)</p>
	Management of community water supplies;	<p>Develop communities' capacity to manage water systems</p> <p>Practical technical skills and knowledge to maintain and repair community water supply systems.</p>	The DoWR is using the NIP and the CAP to provide community water supplies. This is still in an initial phase and skills at Provincial and local levels are limited	<p>Community has capacity to maintain functional RWC and services</p> <p>Area Secretaries will need support in liaising and engagement with Community Water Committees and Provincial DoWR staff to develop suitable DWSSP</p> <p>Provincial</p> <p>Capacity to deliver trainings to RWC that is required for registration (particularly the Provincial Water Supervisors), knowledge of community development, financial management and technical/plumbing training requirements.</p> <p>Budget support for provision of community outreach is also critical.</p> <p>High-level knowledge of the CAP process and procedures, able to process CAP applications for funding consideration.</p>	<p>Communities will need support in how to maintain effective Water Committees; managing finances for operation and maintenance; strengthening supply chains for spare parts; and building local technical skills and water safety monitoring (2)</p> <p>Area Secretaries will need support in liaising with Community Water Committees and Provincial</p>

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
					DoWR staff to develop suitable DWSSP (3)
	Contract development, consultation and execution	<p>Ability to draft appropriate contract for third party development and or operation of water supply systems</p> <p>Delegation of water supply to private operators in rural areas</p>		<p>Community</p> <p>Working with Area Secretaries, Community Water Committees and Contractors to develop and deliver DWSSP</p> <p>Provincial / National</p> <p>Ability to ensure legal rigour to contracts and initiate and support steps to ensure enforcement of standard, targets and output as agreed in contracts.</p>	<p>Skills for oversight, coordination and development of plans and policies (13)</p> <p>Procurement skills including use of standard operating procedures for tendering processes and structured systems for financial management (16)</p>
Demand management	*No functions related to demand management observed in policy or reported from stakeholders.	<p>Understanding of demand management strategies for water conservation</p> <p>Demand for soft approaches to improved WASH outcomes including safe hygiene and sanitation behaviours</p>	Limited capacity and skills in this area at national, provincial and local level	Need to identify targeted related to demand management at community and national levels	<p>National/ provincial level training on demand management strategies and benefits. (27)</p> <p>Improved linkages between technical and behavioural aspects of WASH programs (22)</p>

Table 3: Capacity needs assessment MoET

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of HRDP)
MoET					
Enabling Factors	Develop consistent standards, policies and processes	<p>At National level - Technical expertise in appropriate standards and processes to develop national guidelines or standard designs (minimum quality standards) for WASH facilities in all types of schools (drinking-water, and sanitation, and pre-approved infrastructure designs for schools)</p> <p>At Provincial level – knowledge and skills to develop and deliver technical guidance for schools on what to improve and how to maintain WinS systems</p>	Currently there are no WASH experts, or designated WASH Officers in MoET at National or Provincial levels, resulting in fragmented knowledge in this area.	<p>At least one WASH expert at National level who can develop appropriate standards, processes and designs within each Ministry</p> <p>Some technical capacity at provincial level to assist with developing appropriate standards and designs for each province</p>	Technical expertise in appropriate standards and processes to develop national guidelines or standard designs (minimum quality standards) for WASH facilities in all types of schools (drinking-water, and sanitation, and pre-approved infrastructure designs for schools) (26)
	Provide adequate training and resources to Provincial and district level staff for delivering and supporting WinS programs	<p>Skilled national level trainers to deliver Provincial level training and support</p> <p>Provincial staff who can deliver and support training and resources to districts and schools.</p>	<p>Currently reviewing curriculum to include WASH resources for school lessons.</p> <p>VITE has Provincial Trainers who train current teachers</p> <p>At the Provincial level, the ECCE Coordinator, Provincial Trainers, School Inspectors, and School Improvement Officers are all teachers and many lack management skills</p>	Adequately trained and resourced ECCE Coordinators, Provincial Trainers, School Inspectors, and School Improvement Officers	Training in WASH guidelines and standards as well as menstrual hygiene management, handwashing behaviours and sanitation promotion activities for Provincial trainers, SIO and mobile ECCE (5 and 11)
	Developing curricula for teaching WinS to new and current teachers	Appropriate knowledge and resources for new and current teachers to deliver WASH programs to schools	VITE is developing some components for WASH as part of its bachelor's degree. VITE is currently delivering classes on WASH for the	Appropriate and current curricula included in Bachelor and Diploma Programs for teachers	Current and future teachers will need training in how to deliver WASH in schools, including menstrual hygiene

			diploma which runs in the first year as part of the family life module. In addition, an elective in WASH has also been introduced for year 2, that is taught by Live and Learn		management, handwashing behaviours and sanitation promotion activities. (4)
	Training teachers to deliver WASH (health and hygiene) programs to students and appropriate hygiene practices in schools.	Knowledge of actions from the WinS Improvement Plans (WIPs); Understanding of content and delivery methods for menstrual hygiene management, handwashing behaviours and sanitation promotion activities	The Vanuatu Institute of Teacher Education (VITE) has Provincial Trainers who train current teachers as part of their professional development in the provinces. However, the Provincial Trainers and the School Inspectors are not well equipped or experienced in WASH training. There is currently no coordination between the Provincial Trainers, the In-Service Unit (ISU), VITE and the School Improvement Officers (SIOs) with regard to WASH.	VITE has adequate training modules for new teachers, and Provincial trainers are equipped to train current teachers in delivery methods for menstrual hygiene management, handwashing behaviours and sanitation promotion activities	Current and future teachers will need training in how to deliver WASH in schools, including menstrual hygiene management, handwashing behaviours and sanitation promotion activities. (4)
	Coordination of WASH in Schools (WinS) programs across the country within MoET	Processes required to finance medium and large-scale WinS upgrades, plus WASH-specific funding allocations within the school grant system. Clear processes for managing and delivering WinS from national to provincial to local levels	There are currently 2 MoET WinS Focal Points at National level. At the Provincial level, each Province has a Provincial Early Child Care and Education (ECCE) Coordinator, School Inspectors and Provincial Trainers. Each school zone also has a School Improvement Officer (SIO) and Mobile ECCE Officer (MEO) who work with School Principals to identify issues and problems at the school level.	The newly formed WASH in Schools Steering Committee has identified a lack of coordination at National, Provincial and local levels	MoET School Improvement Officers (SIOs), Mobile ECCE Officers (MEOs) and Provincial Maintenance Officers (PMOs) will need training in the use of national guidelines or standard designs to assist with development of WinS Improvement Plans (WIPs) and identifying and installing appropriate WASH facilities in schools. (5 and 11)
	Coordination of WinS programs with other Govt agencies	Close coordination between MoET, MoH and DoWR to deliver consistent and integrated WASH services and programs	Until recently, there has been limited coordination between the DoWR, MoET and MoH to implement WASH outcomes at National and Provincial levels. The WinS Program is attempting to address this with a consolidated	A functional WinS steering Committee that is effectively coordinating WinS programs with the support of other government agencies	Developing an understanding of roles and responsibilities within and between Ministries at national and provincial level and improving linkages between agencies (14)

			<p>WinS strategy. As of 2018, MoET have been chairing bi-annual, multi-sectoral WinS Steering Committee meetings, aimed at overseeing all WinS-related activities in Vanuatu. The committee comprises manager and director-level membership from MoET, MoH, DoWR, MoJCS, MoYSD, NGOs and the donor community</p> <p>There is also a National Health Promoting Schools Committee comprised of representatives from the MoET, MoH, UNICEF and various NGOs</p>		
	Emergency responses to disasters in relation to schools	Adequate plans and roles developed for schools at provincial and local levels in response to disasters	The WASH Cluster brings together various government agencies and NGOs to work on WASH and Disaster related activities. The DoWR coordinates the WASH Cluster, and works closely with the MoH and MoET	Clear plans and roles for coordinating disaster responses in relation to schools have been developed at National, Provincial and local levels	Integrating climate change mitigation and disaster risk reduction into WASH planning (21)
Supply management	Access to safe water and sanitation facilities in all schools, including gender and equity aspects	Facilities design development support to ensure minimum WinS infrastructure standards (including inclusive and disability considerations) are satisfied through approved designs. Awareness and support systems geared toward monitoring and improving MHM in schools	There is an Inclusive Education and Child Protection focal point, who contributes to oversight of gender and equity-related aspects on WinS	Adequate knowledge of minimum WinS infrastructure standards and designs, including gender and equity aspects	School Improvement Officers and Mobile ECCE Officers will need training on the use of national guidelines or standard designs to assist with identifying and installing appropriate WASH facilities in schools. (5)
Demand Management	Support individual schools to identify WASH needs and develop improvement	Training to PEO staff, specifically the SIOs, MEOs and PMOs, in how to assist school	At the Provincial level, each Province has a Provincial Early Child Care and Education (ECCE)	SIOs, MEOs and PMOs have adequate knowledge and training to assist school	School Improvement Officers and Mobile ECCE Officers will need training on

	plans for appropriate facilities	committees develop WinS Improvement Plans (WIP) using the national WASH guidelines and standards, as well as how to train/assist with menstrual hygiene management, handwashing behaviours and sanitation promotion activities	Coordinator, School Inspectors and Provincial Trainers. Each school zone also has a School Improvement Officer (SIO) and Mobile ECCE Officer (MEO) who work with School Principals to identify issues and problems at the school level. SIOs and MEOs will have a key role in engaging with schools on WASH. These officers need further training to fulfil their roles.	committees develop WinS Improvement Plans (WIP) using the national WASH guidelines and standards, as well as how to train/assist with menstrual hygiene management, handwashing behaviours and sanitation promotion activities	the use of national guidelines or standard designs to assist with identifying and installing appropriate WASH facilities in schools (5) Improved linkages between technical and behavioural aspects of WASH programs (through deeper understanding of modern WASH behaviour change) (23)
Accountability and quality	Monitoring of WinS programs (through the Open VEMIS system)	<p>Use of Open VEMIS</p> <p>M&E skills</p> <p>Develop clearly defined indicators for WASH for use in the Open VEMIS system</p> <p>Adoption of WinS 3-star and SDG monitoring support systems and indicators, plus support in performing evidence-based decision making using data collected</p> <p>Skills to develop Integrated national, provincial and school level WinS monitoring, compliance and reporting system so the School Improvement Officers (SIOs) and headmasters can report their progress in meeting MQS/SIP targets for WASH</p>	<p>The Vanuatu Education Management Information System (Open VEMIS) is being used to compile information about facilities in each school, with an asset survey completed for almost all primary schools. High level ECCE centre facility and MQSS surveys are mostly all complete, and MoET is currently waiting for funding to complete the survey for secondary schools</p> <p>Training in how to use Open VEMIS has been delivered at all levels in 2017 and 2018. However, there could be more training in how to make use of the data at all levels to help with decision making.</p>	Adequate inclusion of appropriate WASH indicators in the Open VEMIS system and training of staff at all levels in how to make use of data to help with decision making	Information management for reporting and planning. Collecting and using data effectively (19)

Table 4: Capacity needs assessment MoH

Functional areas	Core Functions	Skillset Required	Existing Capacity	Desired Capacity	Priority capacity gap (numbers in brackets relate to the capacity Gap number of Table 3)
MoH					
Enabling factors	Develop management capacity in the health sector	The Environmental Health Unit will need to provide coordination, support and training for Provincial staff to take responsibility for sanitation and hygiene in communities and WASH in health care facilities. The MoH also has responsibilities for Sanitation and Hygiene in emergencies	The Public Health Directorate is currently restructuring at National and Provincial levels and gradually filling new positions, although there are still many positions vacant at all levels. The focus is currently on decentralisation and placing more staff at the Provincial level, with the National level having responsibility for oversight, coordination and development of plans and policies	All new positions at National and Provincial levels are filled and staff have adequate training to fulfil their duties	Gaps 13, 15, 16, 17 and 18
	Coordinate with other GoV agencies	Close coordination between MoET, MoH and DoWR to deliver consistent and integrated WASH services and programs	Involvement with the WinS Program and National Health Promoting Schools Committee	Clear roles and linkages between MoH, MoET and DoWR. Consistent messaging for WASH Programs, including standards and designs and health and hygiene	Developing an understanding of roles and responsibilities within and between Ministries at national and provincial level and improving linkages between agencies Gap (14)
	Coordinate with schools for WiS program at local levels	Knowledge of appropriate sanitation standards, (toilets, O&M, hygiene, hand wash facilities)	Some capacity at local and provincial level, although further training in these standards is planned for 2019	Sanitation Officers, nurses and village health workers are working closely with School improvement officers Mobile ECCE Officers and teachers to develop and deliver consistent and appropriate messages and infrastructure	Environmental Health Officers, Compliance Officers, Sanitation Officers and Village Health workers will need training in the construction and use of improved WASH facilities, as well as hygiene practices as part of food safety training.

					(6) and (12)
	Training of Environmental Health Officers, nurses, and village health workers in sanitation and hygiene	Environmental Health Officers and Compliance Officers will need knowledge of safe water supply, hygiene, food safety practice, legislation and standards to support Sanitation Officers, nurses and village health workers at the community level	Village health worker training has not been conducted in many communities due to lack of staff and resources within the MoH, which limits the construction and use of improved WASH facilities. However, further training in these standards is planned for 2019. Many Provinces have not yet employed Environmental Health Officers	Environmental Health Officers and Compliance Officers have adequate knowledge of WASH, legislation and standards to provide practical support and training to other health staff at local levels.	Environmental Health Officers and Compliance Officers will need training in hygiene, food safety, legislation and standards to support Sanitation Officers, nurses and village health workers at the community level. (12)
Supply management	Household water treatment and storage	Village Health Workers will need knowledge of construction, maintenance and use of improved WASH facilities, as well as hygiene practices as part of food safety training. Further clarification is needed on who is tasked with construction of facilities and how the government supports this. Knowledge of water quality monitoring and risk assessment for health significant contaminants, and in effective responses to poor water quality	VHW have some skills in these areas and further training to update these skills is ongoing. Water quality and risk assessment skills needs further support	VHW have adequate training and resourcing to assess and support construction of appropriate household water storage and management	Village Health workers will need training in the construction and use of improved WASH facilities, as well as hygiene practices as part of food safety training. (6)
	Identify WASH needs and develop improvement plans for appropriate facilities	Environmental Health Officers, Compliance Officers and Sanitation Officers will need knowledge of safe water supply and sanitation, and legislation and standards, as well as appropriate behaviour change approaches to support	Current sanitation and hygiene approaches are based on technical options such as construction of facilities without the relevant behaviour change components. Current research shows that achieving improved access requires more emphasis on improved behaviours such as	Environmental Health Officers, Compliance Officers, Sanitation Officers and Village Health Workers will have knowledge and skills to develop safe water supply and sanitation, as well as appropriate behaviour change approaches to support	Environmental Health Officers, Compliance Officers, Sanitation Officers and Village Health workers will need training in the construction and use of improved WASH facilities, as well as

		village health workers at the community level	handwashing with soap, safe disposal of faeces, and safe handling of drinking water. Although the PHAST approach has a strong community engagement component, it could be revised to include behaviour change if the WASH outcomes are to be achieved.	village health workers at the community level	hygiene practices as part of food safety training. (6) and (12) Improved linkages between technical and behavioural aspects of WASH programs (through deeper understanding of modern WASH behaviour change) (23)
	Ensure gender and equity aspects are considered for hygiene requirements	Environmental Health Officers, Compliance Officers, Sanitation Officers, nurses and Village Health Workers include gender and disability considerations in health and hygiene promotion	Village health worker training has not been conducted in many communities and many Provinces have not yet employed Environmental Health Officers.	Gender and equity aspects are incorporated into wash facilities and health and hygiene training programs at community level	Environmental Health Officers, Compliance Officers, Sanitation Officers and Village Health workers will need training in the construction and use of improved WASH facilities, as well as hygiene practices as part of food safety training. (6) and (12)
	Hygiene and sanitation in work places <ul style="list-style-type: none"> • Access to safe water and sanitation facilities in all work places • Sanitation and hygiene promotion in all work places • Appropriate hygiene practices in work places • Training workers to deliver WASH (health and hygiene) programs to other workers 	Environmental Health Officers, Compliance Officers and Sanitation Officers will need knowledge of safe water supply and sanitation, and legislation and standards as well as appropriate behaviour change approaches to support hygiene and sanitation in work places	Many of the positions for Environmental Health Officers, Compliance Officers and Sanitation Officers are not yet filled at Provincial level. As new staff are put in place, they will need training and mentoring, especially considering that many older staff are now retiring without having the opportunity to transfer their knowledge and skills	Adequate numbers of Environmental Health Officers, Compliance Officers and Sanitation Officers are employed in each Province and they will have knowledge and skills to support hygiene and sanitation in work places	Environmental Health Officers, Compliance Officers, Sanitation Officers and Village Health workers will need training in the construction and use of improved WASH facilities, as well as hygiene practices as part of food safety training. (6) and (12)

Accountability and quality	Monitoring to assess use of and beneficiary satisfaction of sanitation and hygiene programs	Skills to develop Integrated national, provincial and local level monitoring, compliance and reporting system to identify WASH facility and hygiene needs and implementation of programs	Information management for reporting purposes is lacking. Data relating to community WASH facilities and hygiene promotion activities are not being systematically collected and used.	A robust and easy to use monitoring and data management system along the lines of the Open VEMIS system, with training in how to use the data for decision making	Information management for reporting and planning. Collecting and using data effectively (19)

Cross-cutting and fundamental skills

In addition to the specific skills and knowledge identified above, some interview respondents indicated a need for some cross-cutting, or core skills, such as critical thinking and problem-solving. This observation aligns well with global literature about skills and knowledge needed to support sustainable development.

UNESCO has identified cross-cutting key competencies required for achieving the sustainable development goals (UNESCO, 2017, pg 10; Box 1.1). Competencies include elements that are cognitive, affective, volitional and motivational in nature; hence they are an interplay of knowledge, capacities and skills, motives and affective dispositions. These are considered to be necessary for all learners of all ages worldwide (developed at different age-appropriate levels).

Whilst the scope of this assessment of WASH capacity in Vanuatu is not as broad as the whole SDGs, these competencies are fundamental to achieving any of the SDGs, and provide a useful insight to the fundamental skills of effective WASH practitioners and professionals in any context.

Key competencies can be understood as transversal, multifunctional and context-independent. They do not replace specific competencies necessary for successful action in certain situations and contexts, but they encompass these and are more broadly focused (Rychen, 2003; Weinert, 2001).

An important aspect to note is that competencies cannot be taught but have to be developed by the learners themselves. They are acquired during action [including action during learning activities], on the basis of experience and reflection (UNESCO, 2015; Weinert, 2001).

Box 1.1. Key competencies for sustainability

Systems thinking competency: the abilities to recognize and understand relationships; to analyse complex systems; to think of how systems are embedded within different domains and different scales; and to deal with uncertainty.

Anticipatory competency: the abilities to understand and evaluate multiple futures – possible, probable and desirable; to create one's own visions for the future; to apply the precautionary principle; to assess the consequences of actions; and to deal with risks and changes.

Normative competency: the abilities to understand and reflect on the norms and values that underlie one's actions; and to negotiate sustainability values, principles, goals, and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions.

Strategic competency: the abilities to collectively develop and implement innovative actions that further sustainability at the local level and further afield.

Collaboration competency: the abilities to learn from others; to understand and respect the needs, perspectives and actions of others (empathy); to understand, relate to and be sensitive to others (empathic leadership); to deal with conflicts in a group; and to facilitate collaborative and participatory problem solving.

Critical thinking competency: the ability to question norms, practices and opinions; to reflect on one's values, perceptions and actions; and to take a position in the sustainability discourse.

Self-awareness competency: the ability to reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires.

Integrated problem-solving competency: the overarching ability to apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive and equitable solution options that promote sustainable development, integrating the above-mentioned competences.

Pedagogies for effective capacity building

A range of pedagogical approaches are typically used to build capacity in the water and WASH sectors globally; the main ones of relevance here include:

1. **Accredited Education programs** (Graduate and Post-Graduate degrees)
2. **Training programs (accredited and non-accredited)**
 - i. Face-to-face
 - ii. Online
 - iii. Blended courses (face-to-face combined with online classes e.g. >30% classes face-to-face intensive classes)
3. **On-the-job mentoring** and capacity development by experienced practitioners
 - i. From within government
 - ii. With mentors / specialists from outside (e.g. technical consultants)
4. **Staff exchanges /Twinning**
 - i. With other utilities in PICs
 - ii. With other utilities outside PIC
5. **Young Water Professionals** – Programs to support new staff at National and Provincial levels
6. **Conferences & Communities of Practice**
 - i. online communities-of-practice forums
 - ii. face-to-face communities of practice activities
 - iii. conferences

Some of these will be more suited than others to particular capacity needs. In addition, some will be more suited than others to the Vanuatu context, including the geographical/demographical makeup of the ministries, existing educational levels of staff, existing capacity building systems and capabilities.

In addition, some will be more suited to capacity building using reflection and experience, that utilises participatory approaches to building capacity – these are the pedagogies identified as critical for developing core competencies such as problem-solving and critical thinking (see above, UNESCO, 2017).

Interventions that encourage critical reflective thinking has been demonstrated as contributing to more effective capacity building, and deeper learning, more broadly (not only for developing the core competencies identified above) (Phan, 2007). This is because “it enables students and educators alike to think critically about their own learning and professional development. The ultimate outcome of reflection is the development of specific skills that may assist individuals to become more critical and to develop expertise in their areas of professionalism (Phan, 2007).

It is recommended that capacity building approaches incorporate critical reflective and experiential pedagogies where possible, as this may enable two outcomes (i) more effective development of the skills and knowledge being taught, for example for a specific task, as well as (ii) encouraging the development of core competencies such as integrated problem-solving and others identified in Box 1.1 above).

Most of the types of capacity building approaches listed above can be delivered using participatory approaches. Those without any face-to-face component, such as purely online training, require more careful consideration about how participation can be effectively achieved, and will be influenced by the educational preferences of participants and their willingness, and confidence and satisfaction with participating. This requirement may conflict with Pacific Islander preferences (discussed below).

Effective pedagogies for capacity building amongst Pacific Islanders

There has been relatively little research on the effectiveness of adult learning approaches for Pacific Islanders. That which is available focuses on sectors other than water, but many of the observations and lessons should be relevant to capacity building of Pacific Islanders in any sector.

The following points are extracted from Phan (2007): An Examination of Reflective Thinking, Learning Approaches, and Self-Efficacy Beliefs at the University of the South Pacific.

- The South Pacific is unique globally in terms of ethos and beliefs. The historical, social, and cultural ethos of this region bestows on educators and students alike a unique set of ideologies and philosophies that influences teaching and learning processes. One critical aspect of culture is that known as the “culture of silence”, where the main emphasis is on the importance of acceptance and respect, and a reluctance to publicly challenge the ideas or actions of another. Not accepting ideas and opinions from authority figures is construed as a sign of disrespect. South Pacific islanders, in professional conduct and academic learning, tend to defer to their superiors more than their Western counterparts.
- The schooling system in the South Pacific region is exam-driven and bounded by strict formal curricula. Consequently, students are instilled with a mindset in their early school years that focuses on memorising and reproducing grades. It is therefore not surprising to find that students prefer this pattern of learning, and not uncommon for students in this region to display limited efforts or ability to relate the contents to other situations (Nabobo-Baba, 2006; Phan, 2006).
- The combination of culture, ethos and schooling system is associated with a strong preference by adults for learning approaches that are more passive, that don't require them to question or challenge their teachers or peers, which would be seen as disrespectful.
- Engaging in critical and reflective thinking in the South Pacific, then, could be viewed as disrespectful and therefore not likely practiced, or even familiar to many adult learners or teachers.

A commonly recommended solution to improving capacity building outcomes for Pacific Islanders entails teachers learning about their Pasifika students' lives (Spiller, 2013). However, teachers' beliefs about Pasifika values and “Pasifika ways of learning” is associated with teachers falling into poor relationships and poor teaching practices (Spiller, 2013).

The Spiller (2013) study found that good Pasifika learning requires that the teacher must have all three of the following teaching strategies:

- allowing Pasifika students respect as a learner as well as having confidence in their ability to learn (having high expectations of them);
- being able to scaffold Pasifika learning at the right level (use variety of instructional techniques to move students progressively toward stronger understanding and ultimately, greater independence in the learning process)
- engaging their Pasifika students in active learning ensuring students have confidence and trust in their teacher

If any of the strategies described above are missing Pasifika learning outcomes are poorer.

Local perspectives on effectiveness of approaches to capacity building

A detailed analysis of the suitability of different pedagogical approaches to building the capacity of the Vanuatu Government to progress its WASH outcomes has been completed and a summaries of effectiveness of different approaches from literature and stakeholders' perspectives, and feasibility for Vanuatu context is provided in Appendix 2. Appendix 3 and 4 provides an overview of existing training activities in Vanuatu and major Education & training institutes based in Pacific Islands,

A summary of some common or critical perspectives of government staff regarding the effectiveness of different pedagogical approaches to building capacity of government to achieve WASH outcomes is provided below. **In**

general, government staff prefer face-to-face practical training opportunities and mentoring approaches, with some use of more formal training for specific skills.

Face-to-face training:

- Suited to specific skills or knowledge gaps for a particular job role, especially where a staff member already has some experience in this area and can be expected to successfully apply the updated skills/knowledge in their current role.
- However, the training should have a focus on a practical and relevant outcome for each participant, so that the theory learned can be applied in the field.
- Training should consist of theory and practical application; developing implementation plans to apply learnings; and follow up visits by trainers to review progress and address any issues identified in implementing the plans.
- For provincial staff, it would be better to deliver training at the provincial level and possibly the zonal level. This is because:
 - Many of the training programs are delivered at the National level, but then there is no real follow up to see how to translate that into practice.
 - Training could be tailored to suit the needs of each province and even lower down at the zonal level. Training could then address local issues, including developing plans to address those issues with follow up support to assist with implementing the plans.
 - Provincial training programs would allow inclusion a wider range of stakeholders across government agencies and across levels of government. E.g. Training in community management models should be undertaken in the field together with Area Administrators and Water Management Committees; or training in developing WASH facilities could include School Principals, SIOs, Provincial Trainers, School Inspectors, Provincial Maintenance Officers, as well as Provincial Water Officers, Provincial Health Officers and Provincial Public Works.

Certified Training and Education Programs.

- Preferably these programs would be delivered over a longer period, consisting of cycles of training sessions followed by a return to work to apply theory to practice. An example of this was a Certificate course offered by USP in Fiji for water technicians who travelled to Fiji for 2-3 month blocks once per year for a number of years, with a return to work between the training blocks.

On the job mentoring:

- In the short term it would be helpful to contract technical specialists (e.g. hydrologists) as mentors and trainers to work with specific staff at National and/or provincial levels. There remains a significant lack of long-term skills and experience and a hands-on mentoring role would help address skills shortages while improving the skills of government staff.
- However, in order for this to be successful, there should be qualified staff nominated and in a permanent position to work with the specialist; and the focus of the specialist should be on mentoring rather than just providing technical skills.
- Depending on the technical expertise required, some of these roles could be filled by recently retired government workers, who have academic skills and many years of experience to pass on to new staff.

Online training; communities of practice; conferences; staff exchanges – these options were not suggested by respondents, indicating either a lack of interest or lack of awareness of these approaches.

Human Resources Development Plan

General recommendations about approaches to building capacity

Key competencies discussed in tables 1 to 4 above would be best developed through a combination of practical and reflective theoretical learning opportunities, such as:

- On site learning opportunities
- Short courses focused on developing and implementing plans with follow up to reflect on the outcomes
- Mentoring – local and international mentors, with an equal focus on knowledge-transfer (adult learning) as well as technical capabilities of the mentor, and with mentoree staff clearly identified
- Communities of practice

These approaches could be supplemented with other training programs that address specific skills needs through currently available national and international courses.

The Human Resources Development Plan draws from the capacity assessment which identified priority assessment gaps. These Gaps have been further explored to consider, based on literature reviewed, and stakeholders feedback, what are the i) recommended format of capacity development activity (Pedagogical approach), ii) Potential delivery options for this capacity development activity, and iii) recommended timing for activities.

Recommended Capacity Development Activities to address priority gaps

As per the previous discussions, we recommend that:

1. The principal approach to country and sector wide capacity gaps should be the design of custom made, practically based short courses that are delivered near to where participants work, followed by post training opportunities for feedback and reflection. Country and sector wide capacity gaps should be addressed through a Training of Trainers approach so that training may be delivered multiple times and in multiple locations.
2. Mentoring is the most effective way to build sustained capacity to address gaps with smaller numbers of key staff. However, this mentoring needs to be done well – ie by mentors with experience in transferring skills and knowledge to Pacific Islanders. Mentoring has the advantage of scaffolding learning over a longer period of time. Mentors could work with specific staff on a regular basis over a period of one year. Mentoring doesn't need to be every day but may be through regular visits of one week per month or two months for a year.
3. Accredited courses could be useful in some circumstances, although off the shelf accredited courses may not always be applicable to local conditions and creating new accredited courses may take time to develop and approve. Accredited courses could be most useful for some specialist skills or as part of a Training of Trainers Program

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
1. DoWR - Communities will need support to manage and monitor water supplies and infrastructure	Frontline practitioners	<ol style="list-style-type: none"> 1. ToT for DoWR national staff who would deliver short courses to provinces 2. In Province short courses or workshops for Contractors who have already received ToT at National level, and for new contractors (Provincial and frontline staff such as Area Secretaries, could also attend) with follow-up support. (A number of 2-3 day courses with follow up one month later). Training would include trips to communities. 	<p>DoWR current in-house ToT programs needs to be improved and run in the provinces. Content in the courses is useful, but it should be related to practical activities. (see what else is available in other countries – GIZ, Unicef). The DoWR and MoH can work together to adapt current manuals and info from other countries.</p> <p>A training specialist could be contracted to develop suitable materials and training formats.</p>	<ol style="list-style-type: none"> 1. Contract training specialist and develop training materials and training format as soon as possible 2. Training of trainers at National level within first 4 months 3. Provincial training programs commence in first 6 months

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
2. DoWR - Communities will need support in how to maintain effective Water Committees; managing finances for operation and maintenance; strengthening supply chains for spare parts; and building local technical skills and water safety monitoring	Frontline practitioners	As for 1 above	As for 1 above	As for 1 above
3. DoWR - Area Secretaries will need support in liaising with Community Water Committees and Provincial DoWR staff to develop suitable DWSSP	Frontline practitioners	As for 1 above	As for 1 above Area Secretaries could attend the Provincial training sessions as shown above, and play a role in follow up with Contractors and Communities, with support from Provincial staff.	As for 1 above
4. MoET - Current and future teachers will need training in how to deliver WASH in schools, including menstrual hygiene management, handwashing behaviours and sanitation promotion activities.	Frontline practitioners	<ul style="list-style-type: none"> In-service training for teachers by MoET National and Provincial Trainers and School Improvement Officers. Training should be practically based Starting 2019, VITE will introduce a bachelor's degree that will include WASH components 	<ul style="list-style-type: none"> VITE has Provincial Trainers who train current teachers, as part of their professional development in the provinces. However, the Provincial Trainers will need support and training as discussed in 11 below. The current curriculum review is working on including WASH supplementary resources for school lessons. These resources have been trialled in Shefa Province where School Improvement Officers worked with Live and Learn Vanuatu in 8 schools to implement WASH in schools using the 3-star and Arts for Advocacy approaches. The Curriculum 	<ul style="list-style-type: none"> Review of curriculum is currently underway Training for Provincial Trainers and SIOs to start once curriculum is finalised Training of current teachers to start within the first 6 months. Training of new teachers as part of the Bachelor Program will start in 2019

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
			Development Unit is currently preparing this material for inclusion in the future curriculum.	
5. MoET - School Improvement Officers and Mobile ECCE Officers will need training on the use of national guidelines or standard designs to assist with identifying and installing appropriate WASH facilities in schools	Frontline practitioners	In-service training for SIO and Mobile ECCE by MoET National and Provincial Trainers on minimum infrastructure standards and designs. Training should be practically based Training will also be needed to develop and implement WinS financing mechanisms	MoET could develop short training courses to be delivered in provinces based around visiting schools and developing plans using national guidelines and standard designs	Provincial training courses could start within 3 months
6. MoH - Village Health workers will need training in the construction and use of improved WASH facilities, as well as hygiene practices as part of food safety training.	Frontline practitioners	Training in Provinces by National level MoH staff. Training should be practically based with visits to communities. Training should include water quality monitoring and risk assessment of water storage systems, as well as gender and equity	<ul style="list-style-type: none"> Village Health Workers, Area Secretaries and communities will be trained in sanitation standards (toilet standards) in 2019 by National level staff in the Provinces. The courses will be for a week and have demonstrations in communities on how to build VIP toilets. The sanitation standards were developed with Live and Learn and are waiting to be approved. The manual also includes O&M, hygiene, hand wash facilities (tippy taps) or bamboos filled with water. Note that there could be overlap between MoH training and the MoET training for teachers, SIOs and MEOs in 5 above 	Starting in 2019, as per MoH current planning
7. DoWR - Formal training in plumbing and water supply systems from source to end user	Provincial government	1. Courses with follow-up support to be run at Provincial level (1 week course with follow up one month later)	Short term - Customised short course developed by external training organisations in partnership with local delivery partner for delivery in the	<ul style="list-style-type: none"> Development of customised course to start immediately Provincial courses to start within 6 months

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
		2. Where possible, recently retired Provincial staff who have extensive experience in this area, could be contracted as mentors to provide follow up support for on the job training	Provinces. (TVET or VIT could be the local delivery partners.) Medium term – develop a certificate at VIT to have the course available from 2020 – a water supply certificate course Courses also available at: Fiji National University – Certificate in Plumbing; Solomon Islands Uni – Plumbing and Allied Trade	<ul style="list-style-type: none"> Mentors could start at the same time as the provincial training
8. DoWR – Water source protection, including risk analysis of water sources, and use of water quality guidelines	Provincial government	Short courses or workshops with follow-up support to be run at Provincial levels (1-2 day courses with follow up one month later)	Course content could be developed from (a) Environmental Health course in School of Nursing; and (b) Water Safety Planning off the shelf courses from WHO Delivered through DoWR National staff or a customised short course developed by external training organisations in partnership with local delivery partner for delivery in the Provinces.	Commence development of course content immediately with short course delivery within 6 months
9. DoWR – Provincial staff to work with Area Secretaries, Community Water Committees and Contractors to develop and deliver DWSSP	Provincial government	As for 1 above	As for 1 above	As for 1 above
10. DoWR - Supervising installation of desalination systems and solar pumps	Provincial government	Technical training on Compliance and standards for these systems	Short course training by experts. Could be provided in Port Vila	Develop and deliver course within first 6 months

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
11. MoET - Training in WASH guidelines and standards as well as menstrual hygiene management, handwashing behaviours and sanitation promotion activities for Provincial trainers	Provincial government	ToT for School Improvement Officers, Mobile ECCE Officers, Provincial Trainers, School Inspectors and Provincial Maintenance Officers delivering short courses to provinces.	Use the VITE curriculum to develop this. Use the ISU There could be overlap on the training that MoH will develop for Village Health Workers in 6 above. MoET and MoH could develop a joint training program for ToT.	Start immediately
12. MoH - Environmental Health Officers and Compliance Officers will need training in hygiene, food safety, legislation and standards to support Sanitation Officers, nurses and village health workers at the community level.	Provincial government	As for 6 above. Provincial staff could attend the Village health worker training programs delivered by MoH national level staff	As for 6 above	As for 6 above
13. Skills for oversight, coordination and development of plans and policies	Country and sector wide	1. Custom training for key staff in each ministry. • Short courses or workshops with follow-up support to be run at National and Provincial levels (1-2 day courses with follow up one month later) Courses include orientation on Policies and Acts, what they mean in practice (how to implement) and maintaining coordination across levels of Government.	Options: In House by Govt Agencies; APTC Vanuatu – Tailored courses; Customised short courses developed by external training organisations in partnership with local delivery partner.	First training at National level within 6 months; followed by Provincial training.

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
14. Developing an understanding of roles and responsibilities within and between Ministries at national and provincial level and improving linkages between agencies	National government (central)	<ol style="list-style-type: none"> 1. Workshops within and between Ministries to identify and clarify roles and responsibilities from National to Provincial level and between Ministries 2. Communities of Practice (WinS program has started this but needs to be leveraged with other WASH programs.) 	<ol style="list-style-type: none"> 1. Workshops developed and supported by external specialists for each Ministry and between Ministries 2. Mapping of roles and responsibilities, with agreement on strategies to manage overlaps and building on synergies (developed in the WinS Gaps analysis) 3. Assign WASH coordinators from each Ministry at National and Provincial level. Regular meetings that include training on topics such as building networks; sector coordination; communication skills; collaboration. 4. Exchange visits between Provinces. 	<p>These are currently being supported by agencies such as UNICEF.</p> <p>Through WinS, the departments have agreed to developing a consolidated multi-agency WinS strategy and incorporating into their respective business plans.</p>
15. Planning, budgeting and project management	Country and sector wide (For Managers at National and Provincial levels)	<ol style="list-style-type: none"> 1. ToT course for trainers. As for all ToT models, need to ensure quality of training through (i) including adult teaching content in ToT course (ii) feedback from participants, (iii) re-fresher ToT every few years. 2. Short courses with follow-up support to be run at National and Provincial levels with participants across Ministries. Series of short courses, face-to-face (e.g. series of one-day trainings on specific topics, delivered in academy format – 2-3 courses on consecutive days, with follow up one month later. Then a few months later, another few courses). 	<ol style="list-style-type: none"> 1. Custom made ToT course to have qualified, people to be Trainers. (Will need external training organisation or international expert to help develop and deliver the ToT courses.) 2. In service short courses (1 week) with follow up after one month. Could be delivered as a series of short courses on particular topics (Note that follow up is preferably face to face, although online follow up could be considered if participants can meet in a common computer room with Trainer online.) 3. Certificate IV in Project Management Practice is available from a number of institutions in Australia or from USP in Fiji 	<ol style="list-style-type: none"> 1. Contract a short course expert to develop ToT courses as soon as possible. All ToT courses should include common elements relating to adult education; developing action plans; and conducting follow up sessions. 2. One-time course for ToT with follow up for quality assurance, and a refresher course after 2 years. Run within the first 6 months 3. First of short courses to be run within the first 9 months. One time Certificate course for key staff (courses are available

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
		If needed, an Accredited Certificate course for one key person in each Ministry		that run for approx 4 months) undertaken as soon as possible
16. Procurement skills including use of standard operating procedures for tendering processes and structured systems for financial management	National government (central)	As for 13 above	As for 13 above Possible course: USP Fiji short course (Fundamentals of Procurement) supplemented with in house training from external expert (eg DoWR is developing standard operating procedures but staff need training in how to use)	As for 13 above
17. Managing Human resources – to manage staff training and capacity building programs, as well as hiring of appropriate new staff at all levels	Country and sector wide (For National and Provincial levels)	<ul style="list-style-type: none"> • Mentoring from an international expert Or • One off accredited or non-accredited course for current HR staff 	<p>Mentor could potentially work with key HR staff from DoWR, MoH and MoET on a rotating basis over a period 6 to 12 month period.</p> <p>Possible accredited course: USP Fiji short course (Fundamentals of HRM) or Certificate IV in Human Resource Management</p>	Identify and contract Mentor immediately. Note that Mentor will need skills in knowledge-transfer (adult learning) as well as technical capabilities. Specific staff need to be identified to work with the mentor.
18. Administration, logistics and organisation skills for mid-level professionals	Country and sector wide (for mid-level professionals at National and Provincial level)	As for 15 above. ie ToT course for Trainers + Short courses for other national and provincial staff (delivered as progressive levels and with particular topics (eg general admin skills; customer service; logistics; record keeping; report writing)	As for 15 above. A certificate course could be delivered through USP Vanuatu (eg Certificate IV in Office Management) or as an APTC Vanuatu Custom made course.	As for 15 above (although the certificate course offered by USP is 18 months part-time delivery)

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
19. Information management for reporting and planning. Collecting and using data effectively	Country and sector wide (For National and Provincial levels)	<ol style="list-style-type: none"> 1. Mentoring or custom training for key staff involved in data management at national and provincial levels 2. In-house short courses or workshops with follow-up support to be run at National and Provincial levels (1-2 day courses with follow up one month later) 3. National and provincial staff to run training programs for frontline staff in data collection and use 4. Development of WinS monitoring indicators, monitoring system (from data collection to analysis using VEMIS) and training on evidence-based decision making (Policy and Planning Unit) 	Custom training for existing information management systems, preferably with a common or similar system across the three ministries. (The MoET appears to be undertaking effective training in how all staff from National to local level can collect data for education using Open VEMIS. However, WASH monitoring needs to be improved as well as how to use the data for monitoring and planning. The DoWR and MoH could develop similar training systems, as well as look at how to integrate data collection across the three agencies.)	<ol style="list-style-type: none"> 1. Develop a common or compatible WASH data collection system across all three Ministries – starting immediately. 2. Contract a short course expert or mentor to develop and deliver training as soon as possible. 3. Develop in house training programs to deliver to frontline staff
20. Skills for monitoring, compliance and enforcement with relevant policies, Acts, regulations and standards at national and provincial levels	Country and sector wide (For National and Provincial levels)	<ol style="list-style-type: none"> 1. Mentoring or custom training for key staff involved in monitoring and compliance at national and provincial levels 2. In-house short courses or workshops with follow-up support to be run at National and Provincial levels (1-2 day courses with follow up one month later) 3. National and provincial staff to run training programs for frontline staff in monitoring and compliance 	Custom training specialists to develop and deliver monitoring and compliance approaches for each of the three Ministries	

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
21. Integrating climate change mitigation and disaster risk reduction into WASH planning	Country and sector wide (For National and Provincial levels)	<p>Short course in Vanuatu to focus on climate change, disasters and WASH and how to apply within Ministries, plus study tours between provinces and/or to other Pacific countries.</p> <p>Courses should also be offered at provincial level to take account of local conditions.</p>	<p>USP Pacific – Vanuatu – Climate Change adaptation and disaster risk reduction; or tailored course specific to Vanuatu conditions developed by external training organisation in partnership with local training organisation.</p> <p>Study tour of how WASH is incorporated into climate change and disaster risk reduction (eg Marshall Islands?)</p> <p>NGOs and Development Partners offer irregular non-accredited short course training, usually delivered in a face-to-face format. UNICEF Pacific: e.g. Gender in WASH, Disaster Risk Reduction and preparedness (including WASH).</p>	
22. Gender and social inclusion considered in plans and programs	Country and sector wide (For National and Provincial levels)	Short course in Vanuatu to focus on gender and social inclusion for WASH programs and how to apply within Ministries.	NGOs and Development Partners offer irregular non-accredited short course training, usually delivered in a face-to-face format. UNICEF Pacific: e.g. Gender in WASH, Disaster Risk Reduction and preparedness (including WASH).	
23. MoH and MoET - Improved linkages between technical and behavioural aspects of WASH programs (through deeper understanding of modern WASH behaviour change)	Country and sector wide	<ol style="list-style-type: none"> 1. WASH behaviour change short course 2. Ongoing Community of Practice activities (linked with WASH community of practice in 14 above). Start at National level to develop current thinking of behaviour change and then teach at Provincial level. 	Use of external training organisations working in WASH behaviour change (e.g. adaptation of existing IWC online course for short course face-to-face delivery.)	

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
		3. Incorporate updated WASH behaviour change approaches into Teacher training curriculum		
24. DoWR - Skilled hydraulic engineers for developing water system designs and conducting surveys, who can then teach some of these skills to provincial level staff	National government (central)	Contract specialist for mentoring role Short courses in Australia or NZ for hydraulic training skills	Specialists will need skills or training in effective mentoring, and contracts should emphasise mentoring role over technical assistance role, along with specification of govt staff who are assigned to be mentored.	Identify and contract Mentor immediately. Note that Mentor will need skills in knowledge-transfer (adult learning) as well as technical capabilities. Specific staff need to be identified to work with the mentor.
25. DoWR - The use of QGIS for collecting and managing field data to design appropriate water supply systems	National government (central)	One off short course.	Short course delivered locally by specialist, or one off short course in Australia or NZ	
26. MoET - Technical expertise in appropriate standards and processes to develop national guidelines or standard designs (minimum quality standards) for WASH facilities in all types of schools (drinking-water, and sanitation, and pre-approved infrastructure designs for schools)	National government (central)	Mentoring from an international expert for the Facilities Unit	Mentor could work with key MoET staff in the Facilities Unit for a period of 12 months with visits to provinces to identify appropriate designs and guidelines	Identify and contract Mentor immediately. Note that Mentor will need skills in knowledge-transfer (adult learning) as well as technical capabilities. Specific staff need to be identified to work with the mentor.

Priority Capacity Gap	Target participants	Recommended format of capacity development activity (Pedagogical approach)	Potential delivery options for this capacity development activity	Recommendations on timing of delivery
27. National/ provincial level training on demand management strategies and benefits.	Country and sector wide (For National and Provincial levels)	<ol style="list-style-type: none"> 1. Mentoring or custom training for key staff tasked with developing demand management programs 2. In-house short courses or workshops with follow-up support to be run at National and Provincial levels (1-2 day courses with follow up one month later) 3. National and provincial staff to run training programs for frontline staff in demand management 	Custom training specialists to develop and deliver demand management training programs to relevant staff in each of the three Ministries	

Appendix 1 Positions unfilled – a serious impediment to capacity building

Note that there are plans to gradually fill key positions, and this is currently happening. However, many of the people who will fill these positions will need extensive support and training as they tend to have limited formal qualifications and/or experience.

Below are some notes relating to lack of staff in many positions at national and provincial levels. This is not an easy situation to remedy, as government funding is limited. However, it makes shorter term capacity building more of an issue, and points to the need for developing capacity to have regular training over a longer time period.

- DoWR - Last year and beginning of this year the DoWR contracted 7 staff on a temporary basis, but their current funding has finished, and they are currently not working, while they are waiting for the positions to be permanently appointed. In the meantime, one person may have to fill in for 2 or 3 positions.
- DoWR - It is difficult to get a graduate for the above positions. They have funding for 2 engineers, and advertised the positions, but didn't find anyone for the positions. So there are 2 types of issues for lack of positions: 1. Lack of skilled people to fill the positions and 2. Lack of funding for creating permanent positions.
- DoWR - World Vision is probably the only organisation that would have the capacity to implement the whole DWSSP program, from forming committees, community training, developing plans and doing civil works and have a budget to do the works before getting paid. The other contractors generally only specialise in one particular area. In practice it is difficult to implement the DWSSP properly given the lack of on ground capacity.
- DoWR - There are 64 positions in the DoWR, with only half of them filled. The PSC is currently in the process of funding a further 6 positions. By the end of the year, they hope to have 12-13 new positions funded, but this depends on the budget. Most of the positions are funded externally (eg MFAT) on a short term basis. For the last 7 positions they tried to fill, there were only 20 applicants. Technical positions needed at National and Provincial levels are mechanics, plumbers, public relations (awareness campaigns), M&E, procurement.
- DoWR - At the National level, they need to strengthen their projects and operations unit. The project planning officer position is vacant, as this is necessary for how they privatise activities.
- DoWR - Critical positions are often not filled due to lack of funding and then lack of qualified people. This is at National and Provincial level. Eg There are currently only 2 Provincial Maintenance Officers in the 6 Provinces. Other positions are not currently filled. (Each Province has a Provincial Maintenance Officer to help with monitoring and maintaining facilities).
- MoH - Positions needed – Environmental Health – out of the 6 provinces there are only permanent Environmental Health officers in three of them. Sanma (Islands of Santo and Malo), is one of them, which has 2; one in Penama, and one in Malampa. In other provinces Environmental Health work is carried out by staff in other positions, such as health promotion. This is an issue often raised by the provinces, that there is a need to fill these positions if WASH policies are to be enacted. They regularly request funds to fill these positions, but there are not enough funds available. However, even if funds were available, there is then the issue of not having enough trained people to fill these positions, especially at provincial level.
- MoH - Nelly Ham is currently the only Permanent staff in Env Health at National level. She has one other staff member as of last year who is on an annual contract. It can be hard to get people on a permanent basis. At Provincial level there are two who are trained Env Health Officers, with the remainder being Health Officials (Health Promotion Officers) who are contacts for Env Health (ie not formally doing Env Health). Two of the Provinces (Torba and Malampa) don't even have a focal health contact. (They have funding requests in now to fill these positions next year.)

- MoH -The Environmental Health key gap is in human resources at all levels. For the department to achieve its sanitation and hygiene outcomes, the required positions on the organisation structure must be filled. The department is severely under staffed and it is difficult to assess if the gaps in skills are as a result of this understaffing or the capacity of the current staff.
- MoH - Consider placing staff at the service delivery level like area councils. In the past the MoH used to have trained Village sanitarians (a WHO initiative) who could do all works related to water and sanitation in the communities and were usually stationed at provincial area councils and paid by the provincial governments. They were very effective at that time (1970s to mid 1990). But no sustainability of those people and they no longer exist now but good to rethink this setup and possible revitalization of these initiatives to include in the HR plan. For sustainability of the projects, they need staff at local level (Area Councils) to address issues.
- MoH - At the National level, they are fine – where they develop policies and coordinate programs. But on the ground in the provinces, there is inadequate staff to enact those policies. Last year, they had 9 new public health graduates who started with the MoH, which is very good. They will firstly gain experience at the national level, but they hope to eventually send them to some of the provinces to improve capacity there (after a few years). The Bachelor of Public Health is delivered through Fiji National Uni and is very good. It is good that there are useful degrees offered within the Pacific. So there needs to be adequate public funding to offer useful positions for these graduates who are coming through. So at national level, they now have a good group of qualified people, who just need more on the job experience, plus perhaps some other additional courses in specific areas.
- MoH is in the same position as DoWR, with only 45% of positions filled.
- MoET – there is currently no National WinS Officer, nor any Provincial WinS Officers. MoET recently elected 2 national WinS Focal Points, however this is additional to their regular work duties as WinS-related roles and responsibilities have yet to be written into either of their job descriptions.
- MoET – few Provincial Maintenance Officer (PMO) posts are currently filled. These posts will be required to oversee WinS infrastructure upgrades/installations.
- All Ministries - A lot of effort is also put into managing disasters, which diverts staff from their normal roles

Appendix 2: Applicability of different approaches to building the WASH capacity of Vanuatu government

The following table provides an analysis of the suitability of different pedagogical approaches to building the capacity of the Vanuatu Government to progress its WASH outcomes, based upon the above summaries of effectiveness of different approaches from literature and stakeholders' perspectives, and feasibility for Vanuatu context.

Table 1: Capacity building approaches and their applicability to Vanuatu

Type of capacity building approach	Applicability to Vanuatu
1. Accredited Education programs (Graduate and Post-Graduate degrees)	<ul style="list-style-type: none"> Offshore delivery only → absence of staff from small teams for longer periods of time exacerbates immediate capacity difficulties Not cost-effective for large numbers of students Suited to roles requiring professional skills, not necessary for practical/vocational skills
2. Training programs (accredited, non-accredited)	
i. Face-to-face courses	<ul style="list-style-type: none"> Preferred pedagogy (supports active learning formats, if skilled adult-educators either teach, or effectively train local trainers) Stated preference by respondents for regular classes over longer duration (rather than short intensive classes) Non-certified courses more able to respond/be adapted to suit locally-required knowledge and pedagogies (than certified courses, or online courses) → may address concerns that some certified courses don't suit local systems and context. More costly to teach on-site in provinces – may be suited to centralised training locations (or provincial locations available to all nationally) Accredited courses more costly than non- accredited. Potential option for teachers of accredited courses to adapt for local context and culture and teach non- accredited versions (especially for skills-based courses) Apprenticeships may be well-suited to development of some more technical skills (but not available)
ii. Online classes	<ul style="list-style-type: none"> Requires sufficient access to computers and reliable and sufficient internet bandwidth (download and upload). Cost-effective (those encouraging participation tend to be larger student groups, with minimal participation; low cost-participative courses may be more effective) Requires active participation to produce effective learning outcomes → May not suit Pacific Islander cultural norms around education formats and teacher-student power dynamics, if courses are completed by individual participants. Group participation may improve active learning opportunities.
iii. Blended courses - (face-to-face combined with online classes e.g. >30% classes face-to-face intensive classes)	<ul style="list-style-type: none"> Costs: in between costs of purely online and purely face-to-face; effectiveness may be better suited to Pacific learner culture If face-to-face intensives precede online activities, culture of active learning can be established (by skilled adult educators), especially if online classes involve problem-based learning and/or job-linked projects. Adaptation of standard online classes possible: self-organised tutorial groups of local course participants, could help increase active learning format, as well as access to sufficient technology (group participation in standard online classes by attending local computer lab facility)
3. On-the-job mentoring	
i. From within government	<ul style="list-style-type: none"> Supports active learning through participation and experiential learning May suit transfer of relevant existing skills and knowledge to newer staff Requires senior staff with both technical knowledge/skills, and ability to transfer these to other adults Potential for recently retired staff from Vanuatu Gov to be engaged as mentors (most effective if their adult learning skills are strong or developed through preparatory training)

ii. With mentors / specialists from outside (e.g. technical consultants)	<ul style="list-style-type: none"> • May suit introduction of new knowledge or skills to Vanuatu • Historically ineffectiveness of this to build local capacity (as opposed to temporarily filling a capacity gap) because: <ul style="list-style-type: none"> ▪ Lack of local staff designated to develop skills through transfer from the specialist ▪ Inadequate adult-learning skills of the specialist • Has potential to be effective if specialists required to have adult learning skills in addition to technical competencies, and, if local positions are filled and designated to be taught by specialist
4. Staff exchanges /Twinning i. With other Countries ii. With other Provinces	<ul style="list-style-type: none"> • Suited to skills development; for knowledge-development may need to be accompanied with structured classes (certified or non-certified) • Preference for short exchanges to minimise disruption to small work teams • Preference for regular exchanges to embed learning and build confidence • For exchanges within Vanuatu: suited to skills that are well-developed in some existing staff (that can teach others) • Likely to be more effective if all staff involved are prepared with an adult-learning preparation course
5. Young Water Professionals	<ul style="list-style-type: none"> • Not familiar to Vanuatu participants, indicating not widely implemented • Suited to building general leadership skills amongst future water managers
6. Communities of Practice i. online communities-of-practice forums ii. Local face-to-face communities of practice activities including local conferences iii. Regional and beyond conferences	<ul style="list-style-type: none"> • Useful for peer-input to addressing actual work challenges • Online formats are most effective when facilitated/coordinated e.g. Facebook groups popular in the Pacific • Local face-to-face formats enable more regular gatherings – more supportive of building knowledge and skills on new approaches, including sharing useful resources • Regional, international Face-to-face formats, such as conferences, useful for building awareness of new approaches and identifying demand/interest for specific capacity building

Appendix 3 – Existing Training Activities in Vanuatu

Current capacity building activities within Vanuatu

The following institutions currently offer training or other capacity building activities from within Vanuatu

- The Public Service Commission is responsible for all training for civil servants at national and provincial levels via the VIPAM unit (Vanuatu Institute of Public Administration and Management).
- Vanuatu Institute of Technology (VIT) – deliver standardised accredited courses, and upon request could develop customised courses.
- Vanuatu Nursing College
- Vanuatu Institute of Teachers Education (VITE)
- MoET Technical schools - Technical and Vocational Education and Training (TVET) is supported by DFAT through the Australia Pacific Training Coalition (APTC) to deliver improved skills for economic growth. They operate centres in 4 Provinces.
- University South Pacific, Port Vila Campus
- DoWR have developed a number of in-house training of trainers programs for supporting the delivery of the NIP to communities

Appendix 3 provides further notes on the current capacity within Vanuatu to deliver WASH courses.

Capacity from outside Vanuatu

There are numerous education and training institutions operating from Pacific Island countries, and many more outside. A summary of these and their disciplinary offerings is provided in Appendix 5.

Those operating inside the Pacific Islands include:

- The University of the South Pacific (USP) including Pacific TAFE and Institute of Applied Sciences
- Solomon Islands National University (SINU)
- The Australia Pacific Training Coalition (APTC)
- Kiribati Institute of Technology (KIT)
- Hawai'i Rural Water Association (HRWA)
- Fiji National University
- University of Guam
- University of Fiji
- University of French Polynesia
- University of New Caledonia
- University of Papua New Guinea
- PNG University of Technology
- Divine Word University, Madang
- Pacific Adventist University, PNG
- University of Goroka, PNG

In addition, NGOs and Development Partners offer irregular non-accredited short course training, usually delivered in a face-to-face format. UNICEF Pacific: e.g. Gender in WASH, Disaster Risk Reduction and preparedness (including WASH),

Of these, there are very few courses with WASH or water resources management content. These include:

- USP Pacific TAFE ([Vanuatu campus](#)): Climate Change Adaptation and Disaster Risk Reduction (Vocational)
- Fiji National University Certificate in Plumbing,
- University of Guam Master of Science In Environmental Science includes water resources.

Many of these institutions run Bachelor of Environmental or Public Health, which are directly relevant to many WASH positions. None of the science programs include significant water resources or management components.

There is very limited water research capacity within the Pacific Islands. University of South Pacific has the Institute of Applied Sciences with significant capacity in water testing and growing community water management.

The University of Guam has the Water & Environmental Research Institute of the Western Pacific, and has a groundwater hydrologist undertaking water resources research in Guam and teaching in to their Master of Science in Environmental Science.

1. Existing accredited training courses	
Vanuatu Institute of Technology (VIT) – Under MoET	VIT could potentially deliver training in the Provinces. They have about 100 trainers available on staff. They have delivered training in model toilet construction. VIT is for post-secondary education. DoWR hopes to develop a Level 2 plumbing course for internal plumbing to be delivered via VIT
Technical and Vocational Education and Training (TVET) - under the MoET and supported by DFAT	Deliver courses on improved skills for economic growth. They operate centres in 4 Provinces.
Vanuatu Institute of Teachers Education (VITE) – Under MoET	Starting 2019, VITE will introduce a bachelor's degree. The curriculum is under development and will include WASH components. There will be no more diploma courses. VITE is currently delivering classes on WASH for the diploma which runs in the first year as part of the family life module. In addition, an elective in WASH has also been introduced for year 2, that is taught by Live and Learn.
Vanuatu Nursing College – Under MoH	The school of nursing offers a 3-year registered nursing diploma. Environmental health is taught in first year and 3 rd year. For first year, introduction to environmental health, basic concepts and definitions are introduced. In the third year, environmental health part 2 includes topics on water source protection, importance of toilets, how to control contamination of diseases. 3 rd year 2 nd semester is a community placement program where the nurses are involved in environmental health promotion that covers WASH topics. The environmental health officer from MoH trains 3 rd year students on topics in WASH – demonstration of building VIP toilets, water quality testing using the department's testing equipment. Other NGOs, including Live and Learn and World Vision have also supported training of 3 rd year students in PHAST hygiene promotion approach, MHM, demonstrations on how to build tippy taps, how to build community health profiles, using locally available materials to build WASH facilities.
2. Non-accredited training activities	
DoWR Training of Trainers courses for the NIP	<p>There are five Training of Trainers courses currently routinely offered by DoWR:</p> <ol style="list-style-type: none"> 1. Drinking Water Safety and Security Plan 2. Plumbers Training (this training should occur after a contractor and materials are procured for construction) 3. Cooperatives Training (this is done in cooperation with https://cooperative.gov.vu/ so that village water cooperatives can collect funds for water system maintenance in a structured manner) 4. Community Water Management Training 5. Operations and Maintenance training

	With these courses the trainees can set up community committees; help to manage the funds from the community to maintain the infrastructure; and maintain the infrastructure with basic plumbing. The technical aspects of the training include repairs, installations and sourcing for spare parts. Community management modules address mobilising communities to set up management committees, training these committees on financial management and managing their end users. This training is conducted in Port Vila by the DOWR national technical staff
MoH - Environmental Health Unit	Village health workers, Area Secretaries and communities will be trained in sanitation standards (toilet standards) in 2019 by National level staff in the Provinces. The courses will be for a week and have demonstrations in communities on how to build VIP toilets. The sanitation standards were developed with Live and Learn and are waiting to be approved. The manual also includes O&M, hygiene, hand wash facilities (tippy taps) or bamboos filled with water.
MoH – Environmental health Unit	The Environmental Health Manager together with some NGO partners conduct training for students at the College of Nursing on WASH as part of the environmental health subject. The training is based on the village health officer training manual, as well as water safety and menstrual hygiene management. Student nurses are expected to take an 8 week assignment in their third year working in communities promoting primary health, which now includes sanitation and hygiene activities such as construction of VIP latrines and tippy taps using local resources.
MoET	Conducts ad-hoc provincial and school-level training programs relating to WASH in conjunction with UNICEF and NGOs.
NGOs and CSOs	Some NGOs or CSOs conduct training activities on an irregular basis with MoET. For example, Live and Learn Environment Education has: <ul style="list-style-type: none"> o developed its own manuals and resources for WASH in Schools training with 8 school improvements officers and 2 school heads in Shefa province. o trained MoET Curriculum Development Unit (writers) on the hygiene resources which included mapping where these subjects can be integrated. o included nurses in their programs in community trainings on technical skills such as construction of different facilities. Providing this hands-on experience has helped the nurses to develop skills that can be transferred to other government project areas. o Trained Lecturers at the Vanuatu teachers training institute on how to integrate WASH into subjects. This has included training on <i>Hands Up For Hygiene</i> for all staff in the institute including the support staff.
3. Other non-training Capacity development activities	
Mentoring	Mentoring from retired staff or from international experts – Delivered on an informal basis, although the focus is currently on using the technical skills of the mentors, with a side benefit of some mentoring.

Appendix 4 - Education & training institutes based in Pacific Islands

Provider	Pedagogies (format)	Topics (skills and/or knowledge developed)	Places of operation	Comments
The University of South Pacific (USP)	<ul style="list-style-type: none"> ▪ Accredited courses ▪ Face-to-face learning ▪ On-line learning ▪ Combination of face-to-face and on-line learning 	<p>Sector-specific topics</p> <ul style="list-style-type: none"> ▪ None <p>Non-sector-specific, but relevant topics:</p> <ul style="list-style-type: none"> ▪ Land management ▪ Information technology ▪ Resilience (climate change adaptation and disaster risk reduction) ▪ Financial administration ▪ Public administration ▪ Human resource management ▪ Business administration ▪ Engineering ▪ Science (environmental science) ▪ Sustainable development in small island states ▪ Project management ▪ Workplace leadership 	<ul style="list-style-type: none"> ▪ Fiji ▪ Cook Islands ▪ Kiribati ▪ Majuro ▪ Marshall Islands ▪ Nauru ▪ Niue ▪ Samoa ▪ Solomon Islands ▪ Tokelau ▪ Tonga ▪ Vanuatu 	<ul style="list-style-type: none"> ▪ Faculty of Arts, Law and Education ▪ Faculty of Business and Economics ▪ Faculty of Science, Technology and Environment ▪ Pacific Centre for Environment and Sustainable Development (PaCE-SD) ▪ Pacific TAFE (see below)
USP Pacific TAFE	<ul style="list-style-type: none"> ▪ Accredited courses ▪ Face-to-face learning ▪ Combination of face-to-face and on-line learning 	<p>Sector-specific topics</p> <ul style="list-style-type: none"> ▪ None <p>Non-sector-specific, but relevant topics:</p> <ul style="list-style-type: none"> ▪ Project management ▪ Information Technology ▪ Climate Change Adaptation and Disaster Risk Reduction 	<ul style="list-style-type: none"> ▪ Fiji 	<p>Pacific TAFE has achieved Registered Training Organisation (RTO) status with Australian Skills Quality Authority (ASQA)</p> <p>USP Pacific TAFE has a Workforce Development Training Unit, focused on designing short courses tailored to organisational clients</p>
Solomon Islands National University (SINU)	<ul style="list-style-type: none"> ▪ Accredited courses ▪ Face-to-face learning ▪ On-line learning ▪ Combination of face-to-face and on-line learning 	<p>Sector-specific topics</p> <ul style="list-style-type: none"> ▪ None <p>Non-sector-specific, but relevant topics:</p> <ul style="list-style-type: none"> ▪ Plumbing and Allied Trade ▪ Electrical ▪ Heavy Vehicle & Plant ▪ Engineering ▪ Construction Management ▪ Safety ▪ Public health ▪ Environmental Studies ▪ Business Studies ▪ Finance ▪ Administration 	<ul style="list-style-type: none"> ▪ Solomon Islands 	

		▪ Accounting		
Fiji National University	▪ Accredited courses: vocational and higher education	Non-sector-specific, but relevant topics: <ul style="list-style-type: none"> ▪ College of Medicine, Nursing & Health Sciences contains the Fiji School of Medicine and the Fiji School of Nursing. ▪ College of Humanities & Education ▪ College of Engineering, Science & Technology 	▪ Fiji	
University of Guam	<ul style="list-style-type: none"> ▪ Graduate ▪ Postgraduate ▪ Vocational ▪ Non-accredited 	Non-sector-specific, but relevant topics: <ul style="list-style-type: none"> ▪ Masters of Environmental Science 	▪ Guam	
University of Fiji	▪ Accredited higher education	Non-sector-specific, but relevant topics: <ul style="list-style-type: none"> ▪ Bachelor of Environmental Science – includes Natural Resources Management but no water-specific content 	▪ Fiji	
University of French Polynesia	▪ Accredited higher education	No relevant courses	▪ New Caledonia	
University of New Caledonia	▪ Accredited higher education	No relevant courses	▪ New Caledonia	
University of Papua New Guinea	▪ Accredited higher education	Non-sector-specific, but relevant topics <ul style="list-style-type: none"> ▪ Master of Public Health 	▪ PNG	
PNG University of Technology	▪ Accredited higher education	Non-sector-specific, but relevant topics <ul style="list-style-type: none"> ▪ <u>Land Surveying and GIS</u> 	▪ PNG	
Divine Word University, Madang	▪ Accredited higher education	Non-sector-specific, but relevant topics <ul style="list-style-type: none"> ▪ Faculty of Medicine & Health Sciences 	▪ PNG	
Pacific Adventist University, Boroko	▪ Accredited higher education	No relevant courses	▪ PNG	
University of Goroka, Goroka	<ul style="list-style-type: none"> ▪ Postgraduate Studies, ▪ Technical Vocational Education & Training ▪ Distance & Flexible Learning 	No relevant courses	▪ PNG	

The Australia Pacific Training Coalition (APTC)	<ul style="list-style-type: none"> ▪ Accredited courses ▪ Non-accredited courses ▪ Face-to-face learning ▪ Combination of face-to-face and on-line learning 	Sector-specific topics <ul style="list-style-type: none"> ▪ None Non-sector-specific, but relevant topics: <ul style="list-style-type: none"> ▪ Built environment - Plumbing ▪ Business - Leadership and management ▪ Engineering - Electrotechnology electrician 	<ul style="list-style-type: none"> ▪ Fiji ▪ PNG ▪ Samoa ▪ Solomon Islands ▪ Vanuatu 	<p>Most courses are off-the-shelf programs. However, tailored courses can be designed for clients.</p> <p>Courses count with Australian-level certifications</p>
Kiribati Institute of Technology (KIT)	<ul style="list-style-type: none"> ▪ Accredited courses ▪ Non-accredited courses ▪ Face-to-face learning 	Sector-specific topics <ul style="list-style-type: none"> ▪ Plumbing Non-sector-specific, but relevant topics: <ul style="list-style-type: none"> ▪ Accounting ▪ Business ▪ Construction ▪ Electrotechnology ▪ Information technology 		
TVET (Vanuatu Skills Partnership)	<ul style="list-style-type: none"> ▪ Accredited courses (face-to-face) 	Non-sector-specific, but relevant topics: <p>Training Provider Support Services (TPSS)</p>	<ul style="list-style-type: none"> ▪ Vanuatu (Sanma, Malampa, Torba, Tafea provinces) 	<p>Training Provider Support program could support external training providers in localizing courses for provincial delivery</p>
Hawai'i Rural Water Association (HRWA)	<ul style="list-style-type: none"> ▪ Accredited courses ▪ Non-accredited courses ▪ Face-to-face learning ▪ Combination of face-to-face and on-line learning ▪ On-line learning 	Sector-specific topics <ul style="list-style-type: none"> ▪ Water Quality Testing & Supply Management ▪ Overview of Water Storage Facilities O&M & BMPs ▪ Overview of Water Main Components and Installation ▪ Valve and Hydrant Maintenance 	<ul style="list-style-type: none"> ▪ Hawaiian Islands (and online) 	

There are many institutions operating outside the Pacific Islands, whose courses can be accessed by Pacific Islanders. These are a few with relevant courses.

International WaterCentre	<ul style="list-style-type: none"> ▪ Non-accredited short courses (online and face-to-face in Australian and abroad) ▪ Education: Masters Integrated Water Management (Brisbane-based) ▪ Project-based capacity building activities and partnerships 	Sector-specific topics <ul style="list-style-type: none"> ▪ Integrated Water Management ▪ Introduction to WASH ▪ WASH Behaviour Change ▪ Water governance ▪ Water Leadership ▪ Water Stewardship ▪ WASH Theory of Change ▪ WASH Monitoring and evaluation 	<ul style="list-style-type: none"> ▪ Australia ▪ In-country delivery on-demand ▪ Online/blended 	<ul style="list-style-type: none"> ▪ Customised short course – developed in response to requests
CAWST	<ul style="list-style-type: none"> ▪ Face-to-face in Africa and Americas ▪ Online resources 	Sector-specific topics <p>Resources for short workshops on many specific WASH topics e.g.</p> <ul style="list-style-type: none"> ▪ WASH and disease ▪ Faecal Sludge Management ▪ Community WASH promotion 	<ul style="list-style-type: none"> ▪ Africa and Americas ▪ Online resources 	<ul style="list-style-type: none"> ▪ Online training resources – for download and use locally in face-to-face training workshops
National Centre for Groundwater Research and Training	<ul style="list-style-type: none"> ▪ Face-to-face - Australia 	Sector-specific topics <p>Groundwater management – many courses on specific topics, including the Australian Groundwater School</p>	<ul style="list-style-type: none"> ▪ Australia 	<ul style="list-style-type: none"> ▪ Customised short course – developed in response to requests
IceWARM	<ul style="list-style-type: none"> ▪ Face-to-face - Australia ▪ online 	Sector-specific topics <ul style="list-style-type: none"> ▪ Water modelling ▪ Plus several potentially relevant topics delivered on demand 	<ul style="list-style-type: none"> ▪ Face-to-face – Australia ▪ online 	<ul style="list-style-type: none"> ▪ Customised short course – developed in response to requests
TAFE Queenslandv	<ul style="list-style-type: none"> ▪ Accredited courses ▪ Non-accredited courses ▪ Face-to-face learning ▪ On-line learning ▪ Combination of face-to-face and on-line learning ▪ On-the-job learning (apprenticeships and internships) 	Sector-specific topics <ul style="list-style-type: none"> ▪ Water Industry Treatment (drinking water, wastewater) ▪ Water Industry Operations (networks, treatment, trade waste) ▪ Evaluating and Planning the Installation of Solar and Heat Pump Water Systems ▪ Domestic Waste Water and Environmental Plumbing ▪ Hydraulic Services Design ▪ Civil Construction Plant Operations <p>Non-sector-specific, but relevant topics:</p>	<p>Various locations in Queensland, Australia.</p> <p>Occasional in-country engagements</p>	

		<ul style="list-style-type: none"> ▪ Plumbing ▪ Conservation and Land Management ▪ Business ▪ Accounting / Book Keeping ▪ Civil Construction ▪ Electrical ▪ Instrumentation and Control Engineering ▪ Networking and Systems Administration 		
National Institute of Water and Atmospheric Research (NIWA)	<ul style="list-style-type: none"> ▪ Accredited courses ▪ Non-accredited courses ▪ Face-to-face learning ▪ Passive learning (online resources) 	<p>Sector-specific topics</p> <ul style="list-style-type: none"> ▪ Community-level water supply and sanitation capacity building (mainly as part of applied research projects) <p>Non-sector-specific, but relevant topics:</p> <ul style="list-style-type: none"> ▪ Climate adaptation ▪ Hydrology and hydrological modelling ▪ Managing extreme weather and flooding ▪ Targeted riparian management ▪ Conservation planning ▪ Farm hydrology and diffuse pollution attenuation tools ▪ Hydrological statistics ▪ Statistical methods for water quality studies 	Based in New Zealand, and operating throughout the Pacific Islands region	Some capacity development activities would be associated to applied research projects with local partners (e.g. NGO)

Appendix 5 – Plans and Policies relating to core functions for DoWR, MoET and MoH

List of acronyms for Policies and Plans

1. National Sustainable Development Plan 2016 to 2030 – **NSDP2030**
2. Vanuatu National Water Policy – **VNWP**
3. Water Resources Management Act – **WRMA**
4. Water Supply Act 1955 – **WSA**
5A Water Supply (amendment) – **WSAA**
5. Vanuatu Rural Water Supply Standards – **VRWSS**
6A Department of Water Resources Standard Operating Procedures – **DoWRSOP**
6. National Water Strategy – **NWS18**
7. Vanuatu National Implementation Plan for Safe and Secure Community Drinking Water 2017 – **VNIPM**
8. Vanuatu Education Sector Strategy 2007-2016 – **VESS**
9. Education act NO. 9 OF 2014 – **EA2014**
10. Bill for the Public Health (amendment) ACT NO. OF 2018 – **PHA2018**
11. Vanuatu National Sanitation & Hygiene Policy – **VNSHP2030**
12. Health Sector Strategy 2017 – 2020 – **HSS**
13. National Environmental Health Policy and Strategy 2012-2016 – **NEHPS**

Note that the not all policies and plans could be accessed by the authors. Some plans and policies are also outdated, and others are only in draft form.

Actors	Core Functions	Linkages to Plans and Policies
Across all agencies (DoWR, MoET, MoH)	Common functions for a functional WASH sector <ul style="list-style-type: none"> - Policy development and implementation - Clear roles and responsibilities - Planning, budgeting and Program Management - Administration and logistics - Information management 	NSDP2030 (p. 20) - ENV 3.1 Institutionalise climate change and disaster risk governance, and build institutional capacity and awareness. NSDP2030 (p. 20) - ENV 3.2 Improve monitoring and early warning systems. NSDP2030 (p. 20) - ENV 3.3 Strengthen post-disaster systems in planning, preparedness, response and recovery. NSDP2030 (p. 20) - ENV 3.4 Promote and ensure strengthened resilience and adaptive capacity to climate related, natural and man-made hazards.

	<ul style="list-style-type: none"> - Monitoring and compliance - Resilience <ul style="list-style-type: none"> - Climate change - Hazards - Emergency response - Gender and social inclusion 	<p>NSDP2030 (p. 20) - ECO 2.4 Enact clear infrastructure governance, legislative frameworks and standards for resilient infrastructure and maintenance.</p> <p>VRWSS (p. 16) – 3. Survey and design. Standard 1: Project design. Projects are designed to provide optimum level of service while keeping operation and maintenance requirements to a minimum.</p> <p>VRWSS (p. 19) – 4. Rural Water supply. Standard 2: Water supply quantity & quality. Sufficient water is easily accessible and available at all times for drinking, food preparation, personal hygiene, cleaning and laundry, and is safe for the purpose intended.</p>
DoWR	Protection of water resources and catchment management	<p>NSDP2030 (p. 20) - ENV 4.2 Protect vulnerable forests, watersheds, catchments and freshwater resources, including community water sources.</p> <p>NSDP2030 (p. 21) - ENV 5.6 Enhance environmental monitoring, evaluation and research with relevant, open and transparent data sharing among relevant agencies.</p> <p>VNWP (p. 2) - 1.1. Action 3: Strengthening water resource data management to identify priority areas to invest in the diversification, storage and regulation of water resources.</p> <p>VNWP (p. 4) - 1.3. Action 1: Introducing a two-step permit system requiring a permit to undertake works to access water resources and a license to use water resources (especially for the supply of drinking water).</p> <p>VNWP (p. 4) - 1.3. Action 2: Automating and linking the waterworks permit process to the inventory so that all 'permitted' water assets are added into the inventory.</p> <p>VNWP (p. 5) - 1.4. Action 1: Support from the government and NGOs to be directed to assist existing and new Rural Water Committees to register as legal not-for-profit entities and comply with requirements under any of the relevant Acts.</p> <p>VNWP (p. 5) - 1.4. Action 2: Prioritize government and NGO support towards communities that are already legally registered entities and willing to comply with the roles required of the Rural Water Committees.</p> <p>VNWP (p. 6) - 1.5. Action 1: Require that the ownership, or lease, or easement rights of any new land that will host public water assets to be registered on the land title deed.</p> <p>VNWP (p. 6) - 1.5. Action 2: Recognize the easement rights of existing water assets on their respective land titles irrespective of whether the land is privately or state owned.</p> <p>VNWP (p. 6) - 1.5. Action 3: Strengthen the management of state owned land by empowering an agency (i.e. municipality, Province, PWD) to undertake coordination to protect the easement rights of all public assets.</p> <p>VNWP (p. 7) - 1.6. Action 1: The central development of model water by-laws for the consideration of the Provincial and Municipal Councils.</p> <p>VNWP (p. 7) - 1.6. Action 2: Support to Provincial Water Resources Advisory Committees to amend the model water by-laws to reflect the local context for consideration by the Provincial and Municipal Councils.</p> <p>VNWP (p. 7) - 1.6. Action 3: The introduction of a requirement that only Area Councils with infrastructure zoning rules will be eligible to receive public water supply projects within their jurisdiction.</p> <p>WRMA (p. 5) – Section 3.1 The Minister is responsible for the protection, management and use of the water resources of Vanuatu in accordance with this Act and the regulations.</p> <p>WRMA (p. 5) – Section 6. Application for right to use water (1) A person must apply to the Director for the right to use water for any purpose that does not comply with section 4 or 5. (2) A person is not required to apply under subsection (1) if water is lawfully supplied from a work authorised under this Act.</p>

		<p>WRMA (p. 6) – Section 7. Application for works: (1) A person must apply to the Director for the right to construct, operate or maintain works for any purpose that does not comply with section 4 or 5, including: (a) any work in or adjacent to any water or any bore; or (b) any work whose purpose is to supply water to any other person. (2) For the avoidance of doubt the existence of any work on land does not confer any rights: (a) to that land on the part of the owner of the works; or (b) to that work on the part of the landowner.</p> <p>WRMA (p. 12) – Section 21. National Water Resources Management Policy and Plan.</p> <p>WRMA (p. 12) – Section 22. Purpose of National Water Resources Management Policy and National Water Resources Management Plan (1) The purpose of a National Water Resources Management Policy is: (a) to promote the environmentally sound and safe management of all water resources; and</p> <p>(b) to provide for the co-ordination of relevant activities.</p> <p>WRMA (p. 13) – Section 26. Declaration of Water Protection Zone.</p> <p>WRMA (p. 15) – Section 29. Power to enter land and take action.</p> <p>VRWSS (p. 13) - Environmental Management and Conservation Act – Section 2, 12, 14, 24.</p> <p>NWS18 (p. 7&15) - Objective 1: A clear regulatory framework and roles between Departments established to provide for transparent and accountable regulation and management of water resources.</p> <p>NWS18 (p. 7&20) - Objective 4: Available water resources and catchments known, managed and protected.</p> <p>PHA2018 (p. 2) – Section 50 provides that a person must not discharge, treat or dispose of sewage other than in the manner as set out under this Act.</p> <p>PHA2018 (p. 2) – Section 51 provides that the construction of a sanitation system or treatment plant is to be made in such a way that prevents sewage from discharging to ground water, or to a drainage or public drainage system.</p> <p>PHA2018 (p. 5) – Section 69 makes provision to protect water sources from latrines. This section however also provides that the Minister may after consultation with the sanitation board prescribe the types of latrines that may be erected within 30 metres to such well, dam, reservoir, river, creek, stream or water course.</p>
	Coordinating resilience across communities	<p>NSDP2030 (p. 17) - SOC3.2 Reduce the incidence of communicable and non-communicable diseases.</p> <p>NSDP2030 (p. 18) - SOC6.6 Strengthen physical planning and management to meet the service delivery needs of a growing population.</p> <p>NSDP2030 (p. 20) - ENV 3.1 Institutionalise climate change and disaster risk governance, and build institutional capacity and awareness.</p> <p>NSDP2030 (p. 21) - ENV 4.7 Build capacity and support local communities to manage natural resources.</p> <p>NSDP2030 (p. 21) - ENV 5.6 Enhance environmental monitoring, evaluation and research with relevant, open and transparent data sharing among relevant agencies.</p> <p>NSDP2030 (p. 23) - ECO 2.4 Enact clear infrastructure governance, legislative frameworks and standards for resilient infrastructure and maintenance.</p> <p>VNWP (p. 2) - 1.1. Action 3: Strengthening water resource data management to identify priority areas to invest in the diversification, storage and regulation of water resources.</p> <p>VNWP (p. 3) - 1.2. Action 2: Rewarding communities that develop efficient management systems for the operation and maintenance, billing and collection, replacement and expansion of public rural water assets.</p>

		<p>VNWP (p. 5) - 1.4. Action 1: Support from the government and NGOs to be directed to assist existing and new Rural Water Committees to register as legal not-for-profit entities and comply with requirements under any of the relevant Acts.</p> <p>WRMA (p. 11) – Section 19. Local Water Management Committees. WRMA (p. 11) – Section 20. Transfer of water supply scheme to community. WRMA (p. 13) – Section 26. Declaration of Water Protection Zone.</p> <p>NWS18 (p. 7&18) - Objective 3: Infrastructure operated and maintained by the communities with technical and management support from the Provincial Office, private sector partners and the Department.</p> <p>VNIPM (p. 8) - Component 3.1 Community triggering. VNIPM (p. 13) - Component 3.4 Community-led improvements. VNIPM (p. 14) - Component 3.5 external support DWSSP implementation.</p>
	<p>WASH cluster coordination</p> <p>DoWRSOP (p. 11)</p> <ul style="list-style-type: none"> • Provide immediate lifesaving water, sanitation and hygiene services in evacuation centres and the worst hit areas; • Distribute clean water (chlorinated, if necessary) through trucking; • Distribute jerry cans for water storage and carriage along with water purification tablets or solution; • Distribute gender and age sensitive family hygiene kits; and • Provide temporary latrine and bathing facilities. • The DOW will be responsible for coordinating all the above activities but the cluster members and CSOs will be implementing the actions 	<p>VNWP (p. 3) - 1.2. Action 3: Strengthening access to high quality personnel (i.e. engineers, plumbers, drillers), products (i.e. tanks, pipes, meters) and techniques (i.e. drilling rigs, HDPE welding). VNWP (p. 5) - 1.4. Action 2: Prioritize government and NGO support towards communities that are already legally registered entities and willing to comply with the roles required of the Rural Water Committees.</p> <p>WSAA (p. 3) – Section 10. National Drinking Water Quality Standard.</p> <p>VRWSS (p. 14) - The Public Health Act – Section 31, 33, 35, 43, 45, 46, 47, 50, 53, 54, 56, 57, 58, 62, 63.</p> <p>DoWRSOP (p. 13) – Section 3.1 Access and water quality. DoWRSOP (p. 13) – Section 3.2. Water Quality. DoWRSOP (p. 13) – Section 3.3. Water Facilities. DoWRSOP (p. 15) – Section 7. Individual and Family Protection.</p> <p>HSS (p. 22-23) - 8.3.1 Collaborative action for a Healthier Environment – Action 8. In line with responsibilities under the International Health Regulations (IHR), develop disaster and emergency response plans, including identification of responsible agencies and provision for rapid and coordinated responses to natural disasters and emergencies. (p. 42-43 Goal 3.1 - 3.1.3). HSS (p. 22-23) - 8.3.1 Collaborative action for a Healthier Environment – Action 9. Engage with other Government ministries and external stakeholders to identify the potential health impacts of climate change and the actions required to deal with these. (p. 40-41 Goal 3.1 – 3.1.2.1).</p> <p>NEHPS (p. 12) – Strategy 8: Public Health Emergency and Disasters.</p>
	Develop and maintain capacity for the WASH cluster positions	<p>DoWRSOP (p. 23) – Section 9. Roles and responsibilities of the department of water staff.</p> <p>NWS18 (p. 7&16) - Objective 2: DGMWR adequately structured and has sufficient capacity to deliver on the Strategy.</p>

	<p>Coordinating the public health risk-based assessment of rural water supply schemes</p>	<p>NSDP2030 (p. 17) - SOC3.2 Reduce the incidence of communicable and non-communicable diseases. NSDP2030 (p. 23) - ECO 2.2 Ensure all people have reliable access to safe drinking water and sanitation infrastructure. NSDP2030 (p. 24) - ECO 4.6 Ensure the health and safety, employment rights and skills development of the workforce.</p> <p>VNWP (p. 2) - 1.1. Action 1: The extension of drinking water safety and security planning to all drinking water asset owners (i.e. departments, private, communities, schools, health facilities, households).</p> <p>WRMA (p. 13) – Section 26. Declaration of Water Protection Zone.</p> <p>VRWSS (p. 14) - The Public Health Act – Section 31, 33, 43, 45, 46, 47, 50, 53, 54, 56, 57, 58, 62, 63. VRWSS (p. 19) – 4. Rural Water supply. Standard 2: WATER SUPPLY QUANTITY & QUALITY. Sufficient water is easily accessible and available at all times for drinking, food preparation, personal hygiene, cleaning and laundry, and is safe for the purpose intended.</p> <p>NWS18 (p. 7&23) - Objective 6: Appropriate and sustainable water and wastewater infrastructure installed to meet domestic, customary use targets and needs for sustainable economic development.</p>
	<p>Provision of safe, secure and sustainable water supplies</p>	<p>NSDP2030 (p. 17) - SOC3.2 Reduce the incidence of communicable and non-communicable diseases. NSDP2030 (p. 18) - SOC6.5 (p. 18) Strengthen local authorities and municipal institutions to enable decentralised service delivery. NSDP2030 (p. 18) - SOC6.6 Strengthen physical planning and management to meet the service delivery needs of a growing population. NSDP2030 (p. 23) - ECO 2.2 Ensure all people have reliable access to safe drinking water and sanitation infrastructure. NSDP2030 (p. 23) - ECO 2.4 Enact clear infrastructure governance, legislative frameworks and standards for resilient infrastructure and maintenance.</p> <p>VNWP (p. 2) - 1.1. Action 1: The extension of drinking water safety and security planning to all drinking water asset owners (i.e. departments, private, communities, schools, health facilities, households). VNWP (p. 2) - 1.1. Action 2: The expansion of access to drinking water testing and treatment services raising awareness on the link between faecal coliforms and chronic undernutrition. VNWP (p. 2) - 1.1. Action 3: Strengthening water resource data management to identify priority areas to invest in the diversification, storage and regulation of water resources. VNWP (p. 3) - 1.2. Action 1: Establishing a state-owned Water Company or contracting private operators to generate the revenues necessary to operate, maintain and upgrade public urban water assets. VNWP (p. 3) - 1.2. Action 3: Strengthening access to high quality personnel (i.e. engineers, plumbers, drillers), products (i.e. tanks, pipes, meters) and techniques (i.e. drilling rigs, HDPE welding). VNWP (p. 3) - 1.2. Action 4: Improving access to finance for households (i.e. via loans, rebates, consumer cooperatives) to access higher quality drinking water products (i.e. water supply meters, first flush systems, rainwater tanks). VNWP (p. 4) - 1.3. Action 1: Introducing a two-step permit system requiring a permit to undertake works to access water resources and a license to use water resources (especially for the supply of drinking water). VNWP (p. 4) - 1.3. Action 2: Automating and linking the waterworks permit process to the inventory so that all 'permitted' water assets are added into the inventory.</p>

	<p>VNWP (p. 5) - 1.4. Action 1: Support from the government and NGOs to be directed to assist existing and new Rural Water Committees to register as legal not-for-profit entities and comply with requirements under any of the relevant Acts.</p> <p>VNWP (p. 5) - 1.4. Action 2: Prioritize government and NGO support towards communities that are already legally registered entities and willing to comply with the roles required of the Rural Water Committees.</p> <p>VNWP (p. 7) - 1.6. Action 1: The central development of model water by-laws for the consideration of the Provincial and Municipal Councils.</p> <p>VNWP (p. 7) - 1.6. Action 2: Support to Provincial Water Resources Advisory Committees to amend the model water by-laws to reflect the local context for consideration by the Provincial and Municipal Councils.</p> <p>VNWP (p. 7) - 1.6. Action 3: The introduction of a requirement that only Area Councils with infrastructure zoning rules will be eligible to receive public water supply projects within their jurisdiction.</p> <p>WRMA (p. 5) – Section 4.3 The occupier of any land can use any water on, adjacent to, or under that land for domestic and stock purposes, if no other lawful users are adversely affected by that use.</p> <p>WRMA (p. 5) – Section 6. Application for right to use water (1) A person must apply to the Director for the right to use water for any purpose that does not comply with section 4 or 5.</p> <p>WRMA (p. 6) – Section 7. Application for works: (1) A person must apply to the Director for the right to construct, operate or maintain works for any purpose that does not comply with section 4 or 5, including: (a) any work in or adjacent to any water or any bore; or (b) any work whose purpose is to supply water to any other person.</p> <p>WRMA (p. 6) – Section 8. Limitation on right to use water.</p> <p>WRMA (p. 11) – Section 20. Transfer of water supply scheme to community.</p> <p>WRMA (p. 13) – Section 26. Declaration of Water Protection Zone.</p> <p>WSA (p. 2) – Section 1. Application for connection to water supply.</p> <p>WSA (p. 2) – Section 2. Connection to water supply.</p> <p>WSA (p. 4) – Section 12. Meter readings.</p> <p>WSA (p. 5) – Section 15. Ownership and responsibility for maintenance of apparatus.</p> <p>WSA (p. 6) – Section 19. Examination of installation.</p> <p>WSAA (p. 3) – Section 10. National Drinking Water Quality Standard.</p> <p>WSAA (p. 3) – Section 10A. Drinking water safety plan.</p> <p>WSAA (p. 4) – Section 10B. Water safety audit.</p> <p>WSAA (p. 4) – Section 10C. Transitional provision relating to water safety plan.</p> <p>VRWSS (p. 13) - Environmental Management and Conservation Act – Section 12, 14, 24.</p> <p>VRWSS (p. 14) - The Public Health Act – Section 31, 33, 35, 43, 45, 46, 47, 50, 53, 54, 56, 57, 58, 62, 63.</p> <p>VRWSS (p. 16) – 3. Survey and design. Standard 1: PROJECT DESIGN. Projects are designed to provide optimum level of service while keeping operation and maintenance requirements to a minimum.</p> <p>VRWSS (p. 19) – 4. Rural Water supply. Standard 2: WATER SUPPLY QUANTITY & QUALITY. Sufficient water is easily accessible and available at all times for drinking, food preparation, personal hygiene, cleaning and laundry, and is safe for the purpose intended.</p> <p>DoWRSOP (p. 13) – Section 3.1 Access and water quality.</p>
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		<p>DoWRSOP (p. 13) – Section 3.2. Water Quality. DoWRSOP (p. 13) – Section 3.3. Water Facilities.</p> <p>NWS18 (p. 7&20) - Objective 4: Available water resources and catchments known, managed and protected. NWS18 (p. 7&22) - Objective 5: All water quality monitored and maintained to meet agreed standards. NWS18 (p. 7&23) - Objective 6: Appropriate and sustainable water and wastewater infrastructure installed to meet domestic, customary use targets and needs for sustainable economic development.</p> <p>VNIPM (p. 12) - Component 3.3 DWSSP approval.</p>
	Water safety planning	<p>NSDP2030 (p. 20) - ENV 3.3 Strengthen post-disaster systems in planning, preparedness, response and recovery. NSDP2030 (p. 20) - ENV 4.2 Protect vulnerable forests, watersheds, catchments and freshwater resources, including community water sources. NSDP2030 (p. 23) - ECO 2.2 Ensure all people have reliable access to safe drinking water and sanitation infrastructure.</p> <p>VNWP (p. 2) - 1.1. Action 1: The extension of drinking water safety and security planning to all drinking water asset owners (i.e. departments, private, communities, schools, health facilities, households). VNWP (p. 2) - 1.1. Action 3: Strengthening water resource data management to identify priority areas to invest in the diversification, storage and regulation of water resources. VNWP (p. 4) - 1.3. Action 3: Automating and linking a licensing process (potentially engaging a Call Centre) to facilitate the two way flow of information on the status of water systems with Rural Water Committees. VNWP (p. 7) - 1.6. Action 1: The central development of model water by-laws for the consideration of the Provincial and Municipal Councils. VNWP (p. 7) - 1.6. Action 2: Support to Provincial Water Resources Advisory Committees to amend the model water by-laws to reflect the local context for consideration by the Provincial and Municipal Councils. VNWP (p. 7) - 1.6. Action 3: The introduction of a requirement that only Area Councils with infrastructure zoning rules will be eligible to receive public water supply projects within their jurisdiction.</p> <p>WRMA (p. 5) – Section 5. Existing works and uses (1) All works and uses lawfully undertaken prior to the commencement of this Act are deemed to be lawful under this Act. (2) The Director may require persons with existing use rights to provide such information as is reasonably necessary for the purpose of section 25. WRMA (p. 5) – Section 6. Application for right to use water (1) A person must apply to the Director for the right to use water for any purpose that does not comply with section 4 or 5. WRMA (p. 6) – Section 7. Application for works: (1) A person must apply to the Director for the right to construct, operate or maintain works for any purpose that does not comply with section 4 or 5, including: (a) any work in or adjacent to any water or any bore; or (b) any work whose purpose is to supply water to any other person. WRMA (p. 6) – Section 8. Limitation on right to use water. WRMA (p. 11) – Section 19. Local Water Management Committees. WRMA (p. 13) – Section 26. Declaration of Water Protection Zone. WRMA (p. 15) – Section 29. Power to enter land and take action.</p> <p>WSA (p. 5) – Section 15. Ownership and responsibility for maintenance of apparatus. WSA (p. 6) – Section 19. Examination of installation.</p>

		<p>WSAA (p. 3) – Section 10. National Drinking Water Quality Standard. WSAA (p. 3) – Section 10A. Drinking water safety plan. WSAA (p. 4) – Section 10B. Water safety audit. WSAA (p. 4) – Section 10C. Transitional provision relating to water safety plan.</p> <p>VRWSS (p. 13) - Environmental Management and Conservation Act – Section 12, 14, 24. VRWSS (p. 14) - The Public Health Act – Section 31, 33, 35, 43, 45, 46, 47, 50, 53, 54, 56, 57, 58, 62, 63. VRWSS (p. 19) – 4. Rural Water supply. Standard 2: WATER SUPPLY QUANTITY & QUALITY. Sufficient water is easily accessible and available at all times for drinking, food preparation, personal hygiene, cleaning and laundry, and is safe for the purpose intended.</p> <p>NWS18 (p. 7&20) - Objective 4: Available water resources and catchments known, managed and protected. NWS18 (p. 7&22) - Objective 5: All water quality monitored and maintained to meet agreed standards.</p> <p>VNIPM (p. 12) - Component 3.3 DWSSP approval.</p>
	<p>Infrastructure development (for rural and urban contexts)</p>	<p>NSDP2030 (p. 17) - SOC3.1 Ensure that the population of Vanuatu has equitable access to affordable, quality health care through the fair distribution of facilities that are suitably resourced and equipped. NSDP2030 (p. 17) - SOC3.2 Reduce the incidence of communicable and non-communicable diseases. NSDP2030 (p. 18) - SOC6.5 Strengthen local authorities and municipal institutions to enable decentralised service delivery. NSDP2030 (p. 18) - SOC6.6 Strengthen physical planning and management to meet the service delivery needs of a growing population. NSDP2030 (p. 23) - ECO 2.2 Ensure all people have reliable access to safe drinking water and sanitation infrastructure.</p> <p>VNWP (p. 2) - 1.1. Action 3: Strengthening water resource data management to identify priority areas to invest in the diversification, storage and regulation of water resources. VNWP (p. 3) - 1.2. Action 1: Establishing a state-owned Water Company or contracting private operators to generate the revenues necessary to operate, maintain and upgrade public urban water assets. VNWP (p. 3) - 1.2. Action 4: Improving access to finance for households (i.e. via loans, rebates, consumer cooperatives) to access higher quality drinking water products (i.e. water supply meters, first flush systems, rainwater tanks). VNWP (p. 6) - 1.5. Action 1: Require that the ownership, or lease, or easement rights of any new land that will host public water assets to be registered on the land title deed. VNWP (p. 6) - 1.5. Action 2: Recognize the easement rights of existing water assets on their respective land titles irrespective of whether the land is privately or state owned. VNWP (p. 7) - 1.6. Action 3: The introduction of a requirement that only Area Councils with infrastructure zoning rules will be eligible to receive public water supply projects within their jurisdiction.</p> <p>WRMA (p. 6) – Section 7. Application for works: (1) A person must apply to the Director for the right to construct, operate or maintain works for any purpose that does not comply with section 4 or 5, including: (a) any work in or adjacent to any water or any bore; or (b) any work whose purpose is to supply water to any other person. WRMA (p. 6) – Section 8. Limitation on right to use water.</p>

		<p>WRMA (p. 11) – Section 19. Local Water Management Committees. WRMA (p. 11) – Section 20. Transfer of water supply scheme to community.</p> <p>WSA (p. 6) – Section 19. Examination of installation.</p> <p>VRWSS (p. 13) - Environmental Management and Conservation Act – Section 12. VRWSS (p. 14) - The Public Health Act – Section 35, 45, 46, 47, 50, 53, 54, 56, 57, 58, 62, 63. VRWSS (p. 16) – 3. Survey and design. Standard 1: PROJECT DESIGN. Projects are designed to provide optimum level of service while keeping operation and maintenance requirements to a minimum.</p> <p>NWS18 (p. 7&23) - Objective 6: Appropriate and sustainable water and wastewater infrastructure installed to meet domestic, customary use targets and needs for sustainable economic development.</p> <p>PHA2018 (p. 2) – Section 51 provides that the construction of a sanitation system or treatment plant is to be made in such a way that prevents sewage from discharging to ground water, or to a drainage or public drainage system.</p>
	Delegation of water management to private operators, in rural areas	<p>VNWP (p. 2) - 1.1. Action 3: Strengthening water resource data management to identify priority areas to invest in the diversification, storage and regulation of water resources. VNWP (p. 3) - 1.2. Action 2: Rewarding communities that develop efficient management systems for the operation and maintenance, billing and collection, replacement and expansion of public rural water assets. VNWP (p. 7) - 1.6. Action 2: Support to Provincial Water Resources Advisory Committees to amend the model water by-laws to reflect the local context for consideration by the Provincial and Municipal Councils.</p> <p>VRWSS (p. 16) – 3. Survey and design. Standard 1: PROJECT DESIGN. Projects are designed to provide optimum level of service while keeping operation and maintenance requirements to a minimum.</p> <p>VNIPM (p. 14) - Component 3.5 external support DWSSP implementation.</p>
	<p>Management of community water supplies;</p> <ul style="list-style-type: none"> - Provincial Water Offices, Area Secretaries, link government to community - to promote the establishment of Rural Water Committees - understanding of the Water Resources Management Act requirements for registering Rural Water Committees (RWC). - Develop a community Drinking Water Safe Supply Planning committee (DWSSP in VNIPM (p. 11)) 	<p>NSDP2030 (p. 18) - SOC6.6 Strengthen physical planning and management to meet the service delivery needs of a growing population.</p> <p>VNWP (p. 2) - 1.1. Action 3: Strengthening water resource data management to identify priority areas to invest in the diversification, storage and regulation of water resources. VNWP (p. 3) - 1.2. Action 2: Rewarding communities that develop efficient management systems for the operation and maintenance, billing and collection, replacement and expansion of public rural water assets. VNWP (p. 3) - 1.2. Action 4: Improving access to finance for households (i.e. via loans, rebates, consumer cooperatives) to access higher quality drinking water products (i.e. water supply meters, first flush systems, rainwater tanks). VNWP (p. 4) - 1.3. Action 1: Introducing a two-step permit system requiring a permit to undertake works to access water resources and a license to use water resources (especially for the supply of drinking water). VNWP (p. 4) - 1.3. Action 3: Automating and linking a licensing process (potentially engaging a Call Centre) to facilitate the two way flow of information on the status of water systems with Rural Water Committees.</p>

		<p>VNWP (p. 5) - 1.4. Action 1: Support from the government and NGOs to be directed to assist existing and new Rural Water Committees to register as legal not-for-profit entities and comply with requirements under any of the relevant Acts.</p> <p>VNWP (p. 5) - 1.4. Action 2: Prioritize government and NGO support towards communities that are already legally registered entities and willing to comply with the roles required of the Rural Water Committees.</p> <p>VNWP (p. 6) - 1.5. Action 1: Require that the ownership, or lease, or easement rights of any new land that will host public water assets to be registered on the land title deed.</p> <p>VNWP (p. 6) - 1.5. Action 2: Recognize the easement rights of existing water assets on their respective land titles irrespective of whether the land is privately or state owned.</p> <p>VNWP (p. 7) - 1.6. Action 1: The central development of model water by-laws for the consideration of the Provincial and Municipal Councils.</p> <p>VNWP (p. 7) - 1.6. Action 2: Support to Provincial Water Resources Advisory Committees to amend the model water by-laws to reflect the local context for consideration by the Provincial and Municipal Councils.</p> <p>VNWP (p. 7) - 1.6. Action 3: The introduction of a requirement that only Area Councils with infrastructure zoning rules will be eligible to receive public water supply projects within their jurisdiction.</p> <p>WRMA (p. 5) – Section 4.1. Every person may continue to use water without further reference to this Act if: (a) no other custom users of the same water resources are adversely affected by that use; and (b) the use of that water is for a customary use.</p> <p>WRMA (p. 5) – Section 4.3 The occupier of any land can use any water on, adjacent to, or under that land for domestic and stock purposes, if no other lawful users are adversely affected by that use.</p> <p>WRMA (p. 5) – Section 5. Existing works and uses (1) All works and uses lawfully undertaken prior to the commencement of this Act are deemed to be lawful under this Act. (2) The Director may require persons with existing use rights to provide such information as is reasonably necessary for the purpose of section 25.</p> <p>WRMA (p. 6) – Section 7. Application for works: (1) A person must apply to the Director for the right to construct, operate or maintain works for any purpose that does not comply with section 4 or 5, including: (a) any work in or adjacent to any water or any bore; or (b) any work whose purpose is to supply water to any other person.</p> <p>WRMA (p. 6) – Section 8. Limitation on right to use water.</p> <p>WRMA (p. 11) – Section 19. Local Water Management Committees.</p> <p>WRMA (p. 11) – Section 20. Transfer of water supply scheme to community.</p> <p>VRWSS (p. 14) - The Public Health Act – Section 43, 46, 50, 53, 58, 62, 63.</p> <p>VRWSS (p. 16) – 3. Survey and design. Standard 1: PROJECT DESIGN. Projects are designed to provide optimum level of service while keeping operation and maintenance requirements to a minimum.</p> <p>NWS18 (p. 7&18) - Objective 3: Infrastructure operated and maintained by the communities with technical and management support from the Provincial Office, private sector partners and the Department.</p> <p>VNIPM (p. 8) - Component 3.1 Community triggering.</p> <p>VNIPM (p. 11) - Component 3.2 DWSSP development.</p> <p>VNIPM (p. 13) - Component 3.4 Community-led improvements.</p>
	Engagement with communities	NSDP2030 (p. 18) - SOC6.6 Strengthen physical planning and management to meet the service delivery needs of a growing population.

	(Community Water Development Officers)	<p>NSDP2030 (p. 20) - ENV 4.2 Protect vulnerable forests, watersheds, catchments and freshwater resources, including community water sources.</p> <p>VNWP (p. 2) - 1.1. Action 2: The expansion of access to drinking water testing and treatment services raising awareness on the link between faecal coliforms and chronic undernutrition.</p> <p>VNWP (p. 3) - 1.2. Action 2: Rewarding communities that develop efficient management systems for the operation and maintenance, billing and collection, replacement and expansion of public rural water assets.</p> <p>VNWP (p. 3) - 1.2. Action 4: Improving access to finance for households (i.e. via loans, rebates, consumer cooperatives) to access higher quality drinking water products (i.e. water supply meters, first flush systems, rainwater tanks).</p> <p>VNWP (p. 4) - 1.3. Action 3: Automating and linking a licensing process (potentially engaging a Call Centre) to facilitate the two way flow of information on the status of water systems with Rural Water Committees.</p> <p>VNWP (p. 5) - 1.4. Action 1: Support from the government and NGOs to be directed to assist existing and new Rural Water Committees to register as legal not-for-profit entities and comply with requirements under any of the relevant Acts.</p> <p>VNWP (p. 5) - 1.4. Action 1: Support from the government and NGOs to be directed to assist existing and new Rural Water Committees to register as legal not-for-profit entities and comply with requirements under any of the relevant Acts.</p> <p>VNWP (p. 5) - 1.4. Action 2: Prioritize government and NGO support towards communities that are already legally registered entities and willing to comply with the roles required of the Rural Water Committees.</p> <p>VNWP (p. 6) - 1.5. Action 1: Require that the ownership, or lease, or easement rights of any new land that will host public water assets to be registered on the land title deed.</p> <p>VNWP (p. 6) - 1.5. Action 2: Recognize the easement rights of existing water assets on their respective land titles irrespective of whether the land is privately or state owned.</p> <p>WRMA (p. 13) – Section 26. Declaration of Water Protection Zone.</p> <p>NWS18 (p. 7&15) - Objective 1: A clear regulatory framework and roles between Departments established to provide for transparent and accountable regulation and management of water resources.</p> <p>NWS18 (p. 7&18) - Objective 3: Infrastructure operated and maintained by the communities with technical and management support from the Provincial Office, private sector partners and the Department.</p> <p>NWS18 (p. 7&25) - Objective 7: Information and response mechanism in place that allows for mutual information sharing and accountability between government and stakeholders.</p> <p>VNIPM (p. 8) - Component 3.1 Community triggering.</p> <p>VNIPM (p. 11) - Component 3.2 DWSSP development.</p> <p>VNIPM (p. 13) - Component 3.4 Community-led improvements.</p> <p>VNIPM (p. 14) - Component 3.5 external support DWSSP implementation.</p>
	Mainstreaming WASH disaster programs	<p>NSDP2030 (p. 20) - ENV 3.3 Strengthen post-disaster systems in planning, preparedness, response and recovery.</p> <p>VNWP (p. 2) - 1.1. Action 2: The expansion of access to drinking water testing and treatment services raising awareness on the link between faecal coliforms and chronic undernutrition.</p>
	Develop communities' capacity to manage water systems	<p>VNWP (p. 3) - 1.2. Action 2: Rewarding communities that develop efficient management systems for the operation and maintenance, billing and collection, replacement and expansion of public rural water assets.</p>

		<p>VNWP (p. 5) - 1.4. Action 1: Support from the government and NGOs to be directed to assist existing and new Rural Water Committees to register as legal not-for-profit entities and comply with requirements under any of the relevant Acts.</p> <p>VNWP (p. 5) - 1.4. Action 2: Prioritize government and NGO support towards communities that are already legally registered entities and willing to comply with the roles required of the Rural Water Committees.</p> <p>VNWP (p. 7) - 1.6. Action 3: The introduction of a requirement that only Area Councils with infrastructure zoning rules will be eligible to receive public water supply projects within their jurisdiction.</p> <p>VRWSS (p. 16) – 3. Survey and design. Standard 1: Project design. Projects are designed to provide optimum level of service while keeping operation and maintenance requirements to a minimum.</p> <p>NWS18 (p. 7&18) - Objective 3: Infrastructure operated and maintained by the communities with technical and management support from the Provincial Office, private sector partners and the Department.</p> <p>VNIPM (p. 8) - Component 3.1 Community triggering.</p> <p>VNIPM (p. 11) - Component 3.2 DWSSP development.</p> <p>VNIPM (p. 13) - Component 3.4 Community-led improvements.</p>
	Build communication/support platforms in rural areas.	<p>VNWP (p. 4) - 1.3. Action 3: Automating and linking a licensing process (potentially engaging a Call Centre) to facilitate the two way flow of information on the status of water systems with Rural Water Committees.</p> <p>VNWP (p. 5) - 1.4. Action 1: Support from the government and NGOs to be directed to assist existing and new Rural Water Committees to register as legal not-for-profit entities and comply with requirements under any of the relevant Acts.</p> <p>VNWP (p. 5) - 1.4. Action 2: Prioritize government and NGO support towards communities that are already legally registered entities and willing to comply with the roles required of the Rural Water Committees.</p> <p>NWS18 (p. 7&24) - Objective 7: Information and response mechanism in place that allows for mutual information sharing and accountability between government and stakeholders.</p> <p>VNIPM (p. 8) - Component 3.1 Community triggering.</p> <p>VNIPM (p. 11) - Component 3.2 DWSSP development.</p> <p>VNIPM (p. 14) - Component 3.5 external support DWSSP implementation.</p>
	Monitoring and accounting of water resources	<p>VNWP (p. 4) - 1.3. Action 1: Introducing a two-step permit system requiring a permit to undertake works to access water resources and a license to use water resources (especially for the supply of drinking water).</p> <p>VNWP (p. 4) - 1.3. Action 2: Automating and linking the waterworks permit process to the inventory so that all 'permitted' water assets are added into the inventory.</p> <p>VNWP (p. 6) - 1.5. Action 1: Require that the ownership, or lease, or easement rights of any new land that will host public water assets to be registered on the land title deed.</p> <p>VNWP (p. 6) - 1.5. Action 2: Recognize the easement rights of existing water assets on their respective land titles irrespective of whether the land is privately or state owned.</p>
MoET	Develop consistent standards, policies and processes	NSDP2030 (p. 17) - SOC3.4 Build health sector management capacity and systems to ensure the effective and efficient delivery of quality services that are aligned with national directives.

	Provide adequate training to Provincial and district level staff for delivering and supporting WinS programs	VNSHP2030 (p. 4) – Section 1.2 Action 4. Updating the training curricula for Health Professionals and the hygiene education curricula for schools to nuance the messaging on the symptoms of faecal exposure.
	Developing curricula for teaching WinS to new and current teachers	VNSHP2030 (p. 4) – Section 1.2 Action 4. Updating the training curricula for Health Professionals and the hygiene education curricula for schools to nuance the messaging on the symptoms of faecal exposure.
	Training teachers to deliver WASH (health and hygiene) programs to students and appropriate hygiene practices in schools.	<p>VNSHP2030 (p. 4) – Section 1.2 Action 4. Updating the training curricula for Health Professionals and the hygiene education curricula for schools to nuance the messaging on the symptoms of faecal exposure.</p> <p>NSDP2030 (p. 17) - SOC3.3 Promote healthy lifestyle choices and health seeking behaviour to improve population health and well-being.</p> <p>VESS (p. 14) – Section 3.6 Goal 6. Strengthen the effectiveness, productivity, accountability, transparency, governance, and decentralization of the education system and build capacities for results-based management at all levels.</p> <p>VESS (p. 15) – Section 3.7 Access and equity: targeted measures to address inequities in access and achievements, and a special focus on women, poverty alleviation, rural and remote areas, people with disabilities, and young people in urban settlements.</p> <p>VESS (p. 25) – Strategy 5.2.3: Improving Quality: Professional Teachers, Relevant Curriculum, School Management, School Facilities, Schools that Care.</p> <p>VESS (p. 31) – Section 6.2 The DoH re health and nutrition in schools, programs to combat HIV/AIDS and pandemics such as malaria, and supporting the school of nursing to be more sustainable and deliver recognized quality training.</p> <p>EA2014 (p. 14) – Part 3. Section 15 (e) to comply with reasonable standards of health and safety and any prescribed health and safety requirements.</p>
	Coordination of WASH in Schools (WinS) programs across the country within MoET	VNSHP2030 (p. 5) – Section 1.3 Action 2. Introducing school research projects for students to monitor the changes in child height-for-age & weight-for-height, as well as illness related absenteeism, associated with their hand hygiene programmes.
	Coordination of WinS programs with other Govt agencies	<p>NSDP2030 (p. 23) - ECO 2.4 Enact clear infrastructure governance, legislative frameworks and standards for resilient infrastructure and maintenance.</p> <p>VNSHP2030 (p. 6) – Section 1.4 Action 2. Advocate for the introduction of a budget line in all government departments for the provision of menstrual hygiene services (i.e. bins in toilets, taps for rinsing pads).</p> <p>HSS (p. 6) - NSDP2030 [Economy pillar 2.5]. Improve partnerships and the cost effective use of resources to ensure sustainable asset management and Maintenance.</p>

	Emergency responses to disasters in relation to schools	<p>NSDP2030 (p. 17) - SOC3.2 Reduce the incidence of communicable and non-communicable diseases.</p> <p>NSDP2030 (p. 20) - ENV 3.4 Promote and ensure strengthened resilience and adaptive capacity to climate related, natural and man-made hazards.</p>
	Access to safe water and sanitation facilities in all schools including gender and equity aspects	<p>NSDP2030 (p. 17) - SOC3.1 Ensure that the population of Vanuatu has equitable access to affordable, quality health care through the fair distribution of facilities that are suitably resourced and equipped.</p> <p>NSDP2030 (p. 18) - SOC6.6 Strengthen physical planning and management to meet the service delivery needs of a growing population.</p> <p>NSDP2030 (p. 23) - ECO 2.2 Ensure all people have reliable access to safe drinking water and sanitation infrastructure.</p> <p>VESS (p. 14) – Section 3.6 Goal 5. Bring the education, management and facilities of every school up to a sustainable minimum standard, able to provide a safe and caring learning environment, and continuously improving its services.</p> <p>VESS (p. 20) – Table 4 Policy: Teachers, Curriculum, School Management, School Facilities. Establish national standards and criteria for sustainable schools: School location and accessibility, water, power, sanitation, communications, classrooms, libraries, science laboratories, boarding facilities, staff housing.</p> <p>VESS (p. 31) – Section 6. Priority Program 5. All schools to develop and implement school improvement plans to bring all schools to national standards and to be more student-centred.</p> <p>EA2014 (p. 14) – Part 3. Section 15 (d) to provide and maintain classrooms and other buildings that are in good condition and that satisfy the prescribed standards.</p> <p>VNSHP2030 (p. 6) – Section 1.4 Action 3. Strengthen the role of girls and women in monitoring the productivity improvements of improved menstrual hygiene services in the household, schools & workplace.</p> <p>VNSHP2030 (p. 6) – Section 1.4 Action 4. Explore further dimensions of exclusion for women (i.e. remoteness, ethnicity, disability, chronic illness & ageing) in sanitation & hygiene that negatively impact development.</p> <p>HSS (p. 6) - NSDP2030 [Economy pillar 2.3]. Ensure that all public infrastructure including health, education and sports facilities are safe, accessible, secure and maintained in compliance with building codes and standards.</p>
	Support individual schools to identify WASH needs and develop improvement plans for appropriate facilities	<p>NSDP2030 (p. 17) - SOC3.2 Reduce the incidence of communicable and non-communicable diseases.</p> <p>NSDP2030 (p. 18) - SOC6.6 Strengthen physical planning and management to meet the service delivery needs of a growing population.</p> <p>NSDP2030 (p. 23) - ECO 2.2 Ensure all people have reliable access to safe drinking water and sanitation infrastructure.</p> <p>VESS (p. 15) – Section 3.7 Access and equity: targeted measures to address inequities in access and achievements, and a special focus on women, poverty alleviation, rural and remote areas, people with disabilities, and young people in urban settlements.</p> <p>VNSHP2030 (p. 5) – Section 1.3 Action 2. Introducing school research projects for students to monitor the changes in child height-for-age & weight-for-height, as well as illness related absenteeism, associated with their hand hygiene programmes.</p>

	Monitoring of WinS programs (through the Open VEMIS system)	<p>VNWP (p. 2) - 1.1. Action 2: The expansion of access to drinking water testing and treatment services raising awareness on the link between faecal coliforms and chronic undernutrition.</p> <p>VNSHP2030 (p. 6) – Section 1.4 Action 3. Strengthen the role of girls and women in monitoring the productivity improvements of improved menstrual hygiene services in the household, schools & workplace.</p>
MoH	Develop management capacity in the health sector	<p>NSDP2030 (p. 17) - SOC3.4 Build health sector management capacity and systems to ensure the effective and efficient delivery of quality services that are aligned with national directives.</p> <p>NSDP2030 (p. 18) - SOC6.1 Enhance the capacity and accountability of public officials, and ensure the impartiality and effectiveness of performance management systems.</p> <p>NSDP2030 (p. 18) - SOC6.4 Strengthen national institutions to ensure they are cost-effective and well-resourced to deliver quality public services.</p>
	Coordinate with other GoV agencies	<p>HSS (p. 20-21) - 8.2 - Action 3. Preparing National and Provincial Health Service Plans.</p> <p>VNSHP2030 (p. 8) – Section 1.6 Action 1. The Department of Public Health & Department of Water Resources working jointly to develop model WASH by-laws for consideration by Provincial and Municipal Councils.</p>
	Coordinate with schools for WiS program	<p>VNSHP2030 (p. 4) – Section 1.2 Action 4. Updating the training curricula for Health Professionals and the hygiene education curricula for schools to nuance the messaging on the symptoms of faecal exposure.</p> <p>HSS (p. 40-41) – Goal 3.1 - 3.1.1.1 Implement the 'healthy islands' policy, maintaining and expanding healthy villages, schools, markets and clinics.</p> <p>HSS (p. 22-23) - 8.3.1 Collaborative action for a Healthier Environment – Action 4 Increase immunisation coverage and cold chain maintenance so that 95% of children are fully protected against major vaccine preventable diseases. (p. 40-41 Goal 3.1 - 3.1.1.4).</p>
	Training of Environmental Health Officers, nurses, and village health workers in sanitation and hygiene	<p>HSS (p. 22-23) - 8.2 - Clinical Services Plan (p. 38-39 Goal 2.1 - 2.1.3.2 As part of the National Service plan, develop a Clinical Services Plan to guide development and decentralization of specialist curative services).</p> <p>HSS (p. 38-39) Goal 2.1 - 2.1.4.1 Workforce planning to cover both total supply of the main cadres; development of specialist skills and maintenance of core competencies.</p> <p>NEHPS (p. 7) – Strategy 1. Objective 1.3. Activity 1.3.2: Training for Environmental Health Officers on WASH and National Sanitation Standards.</p>
	Household water treatment and storage	<p>NSDP2030 (p. 17) - SOC3.2 Reduce the incidence of communicable and non-communicable diseases.</p> <p>NSDP2030 (p. 23) - ECO 2.2 Ensure all people have reliable access to safe drinking water and sanitation infrastructure.</p>

		<p>PHA2018 (p. 2) – Section 52 provides that a person must not operate a central reticulated system or a treatment plant for sewage unless he or she has been issued with a valid permit under this section.</p> <p>VNSHP2030 (p. 7) – Section 1.5 Action 2. Improving access to finance for households (i.e. loans, hire purchase) to access quality sanitation products (i.e. commodes, bathrooms).</p> <p>VNSHP2030 (p. 7) – Section 1.5 Action 6. Developing a ladder of sanitation technology options to strengthen household choice.</p> <p>NEHPS (p. 7) – Strategy 1. Objective 1.1. Activity 1.1.2 Introduce H2S testing of Water to all communities.</p>
	Identify WASH needs and develop improvement plans for appropriate facilities	No clear linkages
	Appropriately designed toilets	No clear linkages
	WASH in clinics	<p>NSDP2030 (p. 17) - SOC3.2 Reduce the incidence of communicable and non-communicable diseases.</p> <p>PHA2018 (p. 4) – Section 66 hospitals, medical facilities must provide and maintain sufficient, adequate and clean sanitation facility.</p> <p>PHA2018 (p. 5) – Section 67 obliges the owner of a building to provide a sufficient number of toilets.</p> <p>VNSHP2030 (p. 5) – Section 1.3 Action 3. Requiring all health clinics to monitor improvements in the hand hygiene behaviour of health practitioners against the prevalence of secondary infections in patients (including mother and neo-natal mortality rates, child growth against height & weight curves).</p>
	Ensure gender and equity aspects are considered for hygiene requirements	<p>VNSHP2030 (p. 6) – Section 1.4 Action 3. Strengthen the role of girls and women in monitoring the productivity improvements of improved menstrual hygiene services in the household, schools & workplace.</p> <p>VNSHP2030 (p. 6) – Section 1.4 Action 4. Explore further dimensions of exclusion for women (i.e. remoteness, ethnicity, disability, chronic illness & ageing) in sanitation & hygiene that negatively impact development.</p>
	<p>Hygiene and sanitation in work places</p> <ul style="list-style-type: none"> • Access to safe water and sanitation facilities in all work places • Sanitation and hygiene promotion in all work places • Appropriate hygiene practices in work places • Training workers to deliver WASH (health and hygiene) programs to other workers 	<p>NSDP2030 (p. 24) - ECO 4.6 Ensure the health and safety, employment rights and skills development of the workforce.</p> <p>PHA2018 (p. 5) – Section 67 obliges the owner of a building to provide a sufficient number of toilets.</p>

	Sanitation and hygiene promotion in communities	<p>NSDP2030 (p. 17) - SOC3.2 Reduce the incidence of communicable and non-communicable diseases.</p> <p>PHA2018 (p. 4) – Section 63 requires that a provincial government council is to take all necessary measure to ensure that the inhabitants of rural areas in that province have access to proper and adequate sanitation facilities.</p> <p>VNSHP2030 (p. 3) – Section 1.1 Action 1. Promotion of routine case-based monitoring of height-for-age and weight-for-age of all children against the normal growth curves.</p> <p>VNSHP2030 (p. 3) – Section 1.1 Action 3. Raising of awareness on the implications and causes of stunting in children and the testing of sanitation and hygiene actions that reduce stunting in children.</p> <p>VNSHP2030 (p. 4) – Section 1.2 Action 1. Raising awareness that the absence of diarrhoea does not imply an absence of dangerous levels of faecal exposure.</p> <p>VNSHP2030 (p. 4) – Section 1.2 Action 3. Editing the Pikinini Helt Book messages to ensure that poor hygiene is not only associated with diarrhoea.</p> <p>VNSHP2030 (p. 4) – Section 1.2 Action 6. Promoting good ‘WASH for Babies’ practices working backwards from the multiple points of faecal ingestion by children.</p> <p>VNSHP2030 (p. 5) – Section 1.3 Action 1. Promoting good hand hygiene & safe food/water handling in the household against the monitoring of child height & weight against age.</p> <p>VNSHP2030 (p. 5) – Section 1.3 Action 4. Developing hand hygiene promotional materials emphasizing the links to impact data (i.e. absenteeism from school or work, morbidity & mortality rates, child growth curves).</p> <p>VNSHP2030 (p. 7) – Section 1.5 Action 5. Encouraging Provinces to ensure sanitation entrepreneurs offer compliant sanitary products.</p> <p>VNSHP2030 (p. 8) – Section 1.6 Action 6. The Department of Public Health & Department of Water Resources working jointly to develop model WASH by-laws for consideration by Provincial and Municipal Councils.</p> <p>HSS (p. 40-41) – Goal 3.1 - 3.1.1.1 Implement the ‘healthy islands’ policy, maintaining and expanding healthy villages, schools, markets and clinics.</p> <p>HSS (p. 40-41) – Goal 3.1 - 3.1.1.2 Increase sanitation and clean water coverage and work with WASH partners and VHWs to promote hand washing.</p> <p>HSS (p. 22-23) - 8.3.1 Collaborative action for a Healthier Environment – Action 2 Increase sanitation and clean water coverage, and work with Water and Sanitation Health (WASH) partners and VHWs to promote hand washing.</p> <p>HSS (p. 22-23) - 8.3.1 Collaborative action for a Healthier Environment – Action 7. Develop and apply infrastructure/facility standards [Section 8.2] to ensure that health facilities are safe, accessible and user-friendly. This links with the ‘Healthy Clinics’ part of the ‘Healthy Islands’ program.</p> <p>HSS (p. 22-23) - 8.3.1 Collaborative action for a Healthier Environment – Action 10. Support and expand cross-sectoral activities directed at encouraging healthier lifestyles though environmental change.</p> <p>NEHPS (p. 7) – Strategy 1. Objective 1.2. Activity 1.2.2: Improve sanitation facilities in communities ; school and health facilities.</p> <p>NEHPS (p. 7) – Strategy 1. Objective 1.3. Activity 1.3.1: Develop and distribute IEC materials on Water, Hygiene and Sanitation.</p>
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	Monitoring to assess use of and beneficiary satisfaction of sanitation and hygiene programs	No clear linkages